

TEXTILE BULLETIN



VOL. 60

JULY 1, 1941

NO. 9

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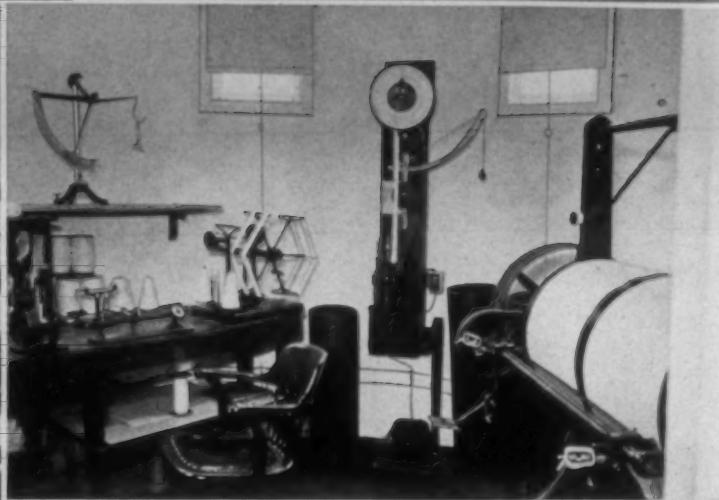
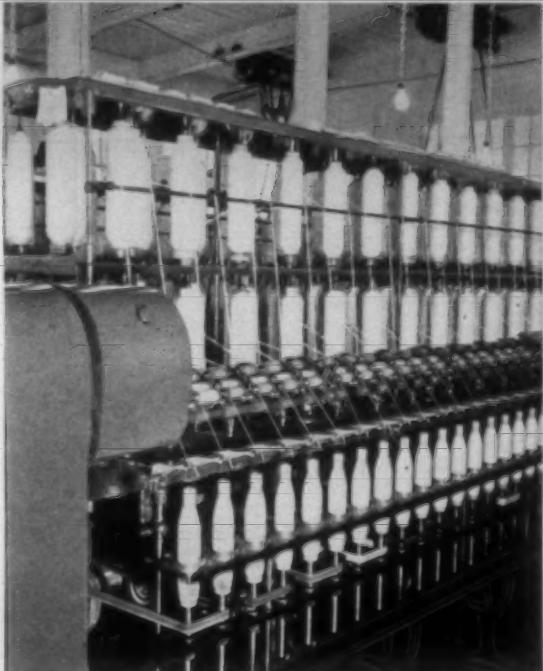
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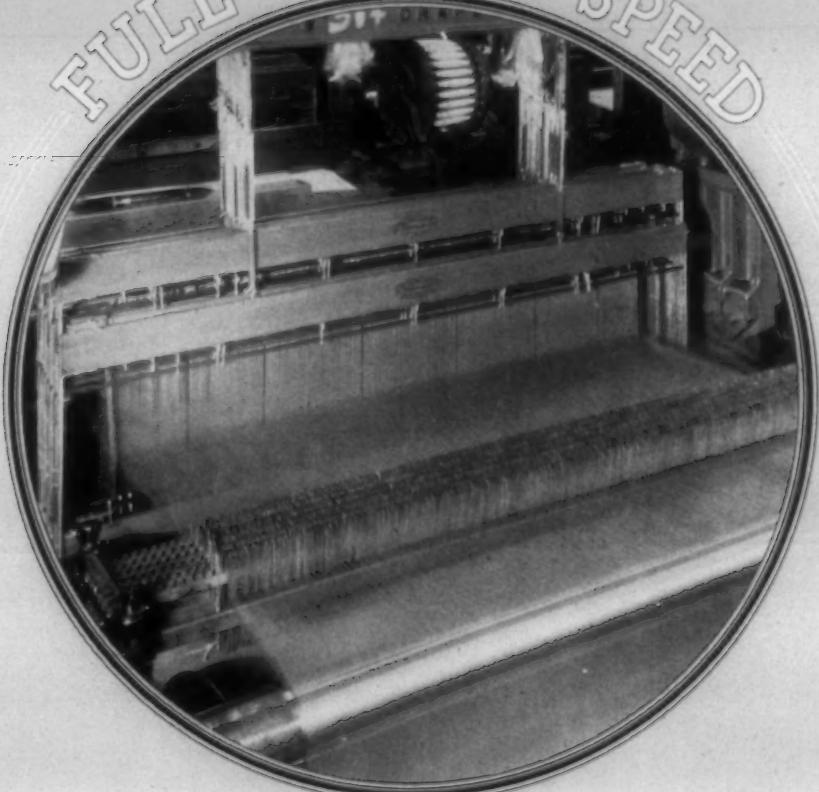
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Guest Editorial

THE subject of Public Relations lends itself to a very broad field, hence those who direct its activities must rather definitely define their plans and purposes.

Whether the director of Public Relations deals with an industry as a whole or as an individual company, the problem is the same. There is an inside job to do and there is an outside job.

The inside job, which is highly important, must be done first. It is known as industrial relations. The company or the industry must take care to see that it has operating the very best industrial relations policies that are possible. This subject has been discussed so much that statements describing it are commonplace. They are not commonplace in a Public Relations program because they are the stepping-off place.

A real industrial relations program means that the problems of employer-employee relationships are satisfactorily solved or that policies for a correct solution of them have been provided.

It should also mean that employees are thoroughly informed about these policies and in the main approve them. These statements are made to establish the fact that a Director of Public Relations must have this fulcrum on which to place his lever when he begins to prize the public into an appreciation of the industry. The Director of Public Relations must be positive and not apologetic; he must be aggressive and not defensive.

Again, one of the most potent factors in a Public Relations program is the *viva voce* of its satisfied employees, telling the story wherever they go. It is the direct contact that an industry has with its local community. The importance of this inside job cannot be stressed too strongly.

Then there is an outside job that must be done. This is a much broader job and must be analyzed more carefully so that the energies and efforts will be effective. Of course, the industry must sell itself to its local community and the fact of whether or not it does this, or can do this, rests largely with the local industry. The ways and means are available and they must be used and the industry must be the instrument for setting these factors in motion. Since this is an editorial, details must be avoided.

The industry wants to enjoy the good will of the larger community of the state and nation. This lends itself to the director as his responsibility. It wants to be known as a constructive, social and economic force in the nation. It wants to be known as dealing in all of its phases in high ethical standards. It wants to be known as fair in all of its dealings. It wants to be treated fairly and does not want the public to develop punitive ideas in thinking of it. It wants to enjoy the confidence and respect of all classes. It wants the public to know and understand its problems and how it is trying to solve them. It wants the public to know that it produces quality goods at reasonable prices. It wants the public to know that it, the problem, is more powerful than industry and that the public can kill industry. It wants the public to know that industry and agriculture are complements of each other and whatever hurts industry hurts agriculture. It wants to destroy class conflicts and reunite this nation into a great democracy.

These are some of the general statements to be emphasized in dealing with the public at large.

These principles also deal with another phase of Public Relations, that of building good will for our customers and prospective customers. When this work is done it needs a rather specific handling although there are no sharp lines of demarcation in the field of Public Relations.

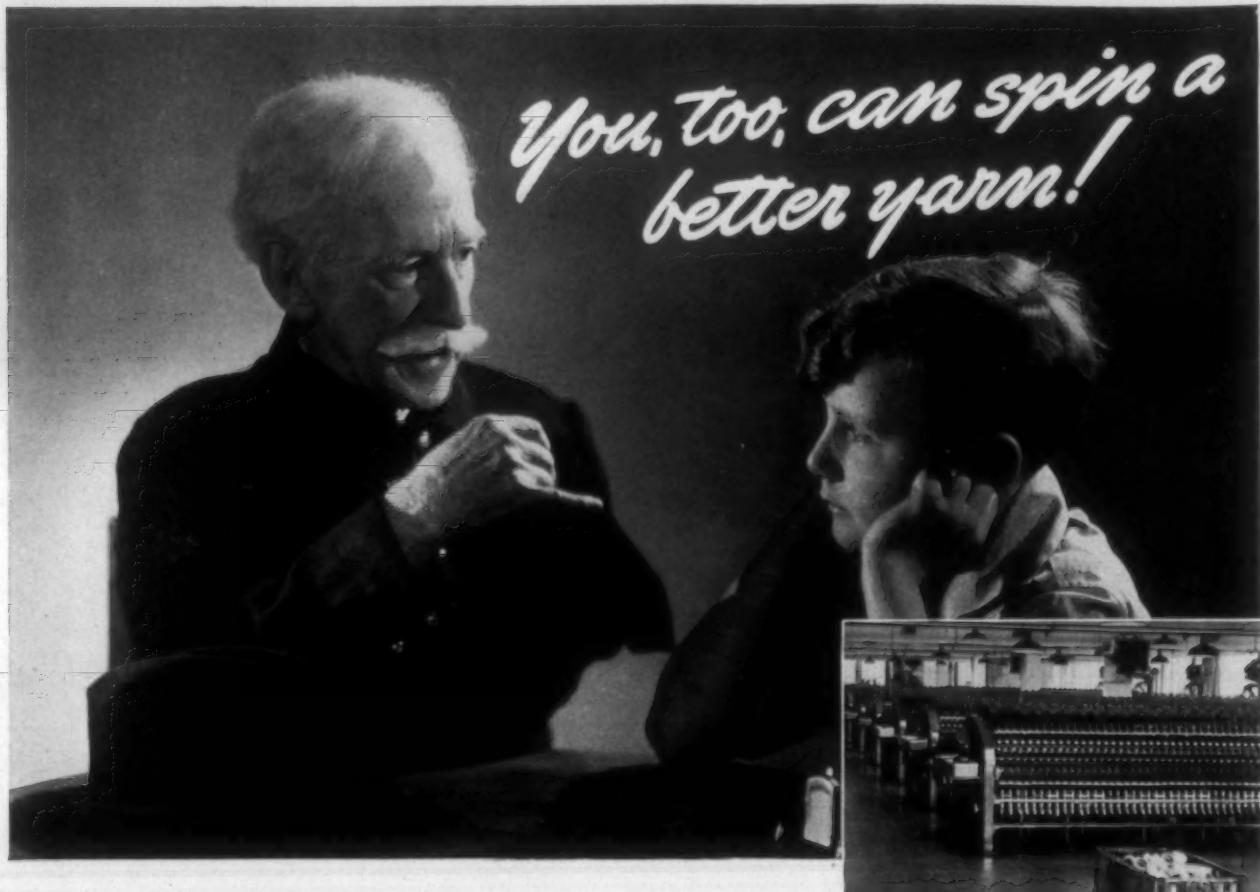
Most people are inclined to believe that which is told them most often and in these distressful days they are more inclined to believe the bad than they are the good.

The cotton textile industry has a glamorous and romantic story of social and economic value that must be told and retold to the public at large.

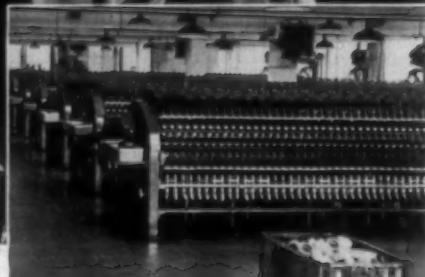
All companies, all lovers of the South, all people who believe in the progress and in the social and economic well being of the South, must join in whole-heartedly and help to tell the story.

The textile industry is indeed a leader in the social and economic thinking of the South.

Wm. M. McLaurine
Secretary-Treasurer
American Cotton Manufacturers Association



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TEXACO Lubricants
FOR THE TEXTILE INDUSTRY



TEXTILE BULLETIN



Vol. 60

July 1, 1941

No. 9

Some Spinning Test Results of Interest to Cotton Manufacturers*

By Malcolm E. Campbell, Senior Cotton Technologist

ALL the results obtained at the spinning and fiber laboratories of the Agricultural Marketing Service have either a direct or an indirect bearing on the manufacturing quality and utility of American cotton. The problems studied are quite varied in nature, touching upon many fields of work, from the agronomic through the ginning, marketing, and manufacturing phases of the industry. During the past two or three years, the efforts of the laboratories have been directed largely toward examinations of different varieties of cotton from the quality point of view.

According to the agronomists of the Bureau of Plant Industry, more than 1,200 different varieties or strains of American cotton have been catalogued at one time or another. A few of these are looked upon as basic varieties, possessing their own inherent characteristics, while the rest are merely selections or offshoots of the originally-developed varieties. Moreover, it is not uncommon to find that the name of a particular variety has been changed for commercial reasons, so what may appear to be two or more varieties are, in effect, the same cotton.

Such a situation is, to say the least, confusing to a farmer or group of farmers who wish to select a variety that will give them the best yields and that will also appeal to the spinner. As a result, in most cases the grower selects a variety on the basis of yield per acre and staple length, and too many times the cotton he produces possesses inferior spinning quality. This is no reflection on the grower or the cotton breeder who sold the seed to the planter, as they have had no direct way of determining the spinning quality of their cotton.

To meet this need for information regarding manufacturing quality, several hundred samples of cotton, representing a number of different varieties grown in different sections of the cotton belt, have been subjected to careful spinning and fiber studies in the laboratories of this service. These cottons were produced by the Bureau of Plant Industry in connection with the cotton breeding, production, and improvement program, and in co-operation with various State agencies. The results of the tests are being made available to Federal, State, and private agencies and to individuals who are interested in them.

From these studies certain varieties have been found to be of consistently high quality, and it is these that the cotton producers are being encouraged to grow, due regard being given, of course, to such matters as yield and cost of production, as well as to probable demand for cotton of specific qualities. There are now upwards of 1,900 one-variety communities in this country, producing more than 2 million bales annually. It is encouraging to note that many of these communities are making every effort to establish a reputation among manufacturers for cotton of high quality. And to a considerable extent the spinning test results being obtained in our laboratories are being used as a basis for the selections of the varieties to be grown.

The Department of Agriculture is anxious to acquaint the manufacturer with these facts, so that they will be able to find the cotton that will best meet their requirements. The results of the spinning and fiber tests, showing how the different varieties of cotton compare at the various locations, will be mailed as they are released, to anyone who sends in a request for them each year. In addition, the department publishes a list which gives the locations of the one-variety communities and the name of the variety grown by each, which also may be obtained by anyone upon request.

Although a large proportion of our work has recently been concerned with these variety tests, there are a number of other problems to which we have given our attention and which also are of direct interest to manufacturers.

Irrigated Versus Rain-Grown Cotton

Our laboratories are, in effect, a proving ground where many developments in the fields of ginning and marketing are tested, and where occasionally an old but still controversial question is settled. Among the latter is the question of the relative quality of irrigated and rain-grown cotton. Probably every manufacturer in this group who uses cotton of 1-1/16 to 1 1/8-inch staple either has tried out irrigated cotton or has attempted to find out how it might serve his requirements. And, if a poll could be taken, it would probably be found that there is a range of opinion regarding the quality of irrigated cotton.

*Address, Annual Convention of Southern Textile Association, Myrtle Beach, S. C., June 13-14, 1941.

Some would say they had found it entirely satisfactory, but others, whether from actual experience or hearsay, would undoubtedly turn "thumbs down" on it. At least, that has been our experience in discussing the problem with many manufacturers.

In any event, the subject has been so controversial and important for so long a time that the department decided to look into it in a careful, unbiased way. We wanted to find out whether the claims of many manufacturers were well-founded that irrigated cotton was wasty; that the yarns were weak, rough, and neppy; that the fabrics were of poor appearance and did not dye uniformly; and that, in general, the cotton gave trouble in manufacturing. So, this last year, our laboratories were called upon to make as thorough an investigation of the question as possible with the facilities and personnel available.

Time does not permit a detailed description of the selection of the samples or of the various methods and techniques employed in the tests. For present purposes a brief account of the cottons used and the results obtained will be sufficient. From more than 130,000 commercial bale samples, about 20,000 were selected and composited into test lots, on the basis of the origin, grade, and staple of the cotton. Three general areas were represented, as follows: (1) California; (2) Arizona, New Mexico, and West Texas; and (3) the Mississippi Delta, or parts of the States of Mississippi, Arkansas, and Louisiana. The first two of these areas produce irrigated, and the third, rain-grown cotton. From each area, cottons of three staple lengths for each of four grades were included in the tests. These cottons were spun into yarns, and made into tire cord and sheeting, and samples of the fabric were bleached and dyed. All the different products were tested in many different ways.

The results may be summarized in popular form by the question-and-answer method, as follows:

Was irrigated cotton more wasty than rain-grown cotton? It was in the two shorter lengths, 1-1/16 and 1-3/32 inches, but in the 1-1/8-inch length, the Delta samples rather consistently gave up more picker and card waste.

Were the yarns spun from the irrigated cotton weaker? Generally speaking, the California and Delta yarns were near enough alike in strength not to make much difference to a spinner, but the Arizona-New Mexico-Texas yarns were about 5 per cent weaker than those of the other two growths.

Were the yarns spun from irrigated cotton of poorer appearance than those from rain-grown cotton? In most cases rather definitely so. The irrigated yarns contained more neps and in many cases were slightly more uneven than the rain-grown cotton yarns. This difference in yarn appearance was, of course, carried into the fabric samples, so that the rain-grown fabrics were easily distinguished, even after bleaching and dyeing.

Did the irrigated fabrics take dye unevenly? No. But the dye absorption of the irrigated and rain-grown fabrics was so different that trouble would result if the yarns of the two growths were allowed to become mixed in weaving fabric that was to be dyed.

Was the irrigated cotton "hard to spin?" No. Although the technologists in the laboratory watched the cotton very closely at every process, no difference could be detected in the manufacturing performance of the two growths.

These are some of the more outstanding results of the tests. They represent one crop year only, and the study will have to be repeated on one or two more crops before very definite conclusions can be drawn. A detailed description of the tests and results may be found in a report just released by the department entitled, "Tests of Irrigated and Rain-Grown American Upland Cotton, Crop of 1939."

Drying Cotton Before Ginning

During recent years the practice of passing seed cotton through a hot air drier just before it is ginned has become rather widespread in many parts of the cotton belt. Seed cotton that is "green," or that has been picked with the dew on it, or that has been soaked by rain, can now be ginned without long delays. By drying according to the recommendations of the U. S. Cotton Ginning Laboratory at Stoneville, Miss., the ginner can take damp or wet seed cotton directly from the wagon and gin it, with the knowledge that he will obtain a smooth sample of cotton instead of one that is rough or gin-cut because the drier has not been used.

It is natural that mill men and others should raise the question as to what effect, if any, this hot-air drying has on the spinning quality of the lint. This is a matter that has been carefully checked in the department's spinning laboratories, not for just a single crop year, but for several. Cottons dried at each of several different temperatures before ginning have been spun and tested, and compared with specimens of the same cotton ginned without the use of the drier. The results of these tests have shown that temperatures above 200° F. do definitely result in weaker yarns. This is apparently due to two things, namely, the "baking" and consequent weakening of the fibers, and a measurable shortening of the fibers. But when the recommended temperature of not more than 160° F. is used (and surveys have shown that practically all ginners care careful to follow this recommendation) the grade of the cotton is definitely improved without any appreciable loss in the strength of the yarns. For example, eight different cottons were ginned both in a green and damp condition and after having been dried with temperatures up to and including 190° F. These cottons, which ranged from 31/32-inch to 1 1/4 inches in staple length, were spun into yarns and tested. On an average, the dried cotton produced yarns that were only 1.16 per cent weaker than those spun from the green and damp cotton. Such a decrease would be negligible from any practical standpoint in the manufacture of cotton. At the same time, the amount of picker and card waste removed from the dried samples was found to be somewhat less than that from the undried. This difference was about as much as the average difference between middling and strict middling cotton.

An interesting point to note in connection with the drying problem is the effect of sun drying the seed cotton before ginning. Before the development of artificial driers, many growers and ginners spread damp or wet seed cotton on tarpaulins to dry in the sunlight. Our tests have shown that while such a treatment resulted in excellent preparation or smoothness of the ginned lint, it was extremely harmful to its utility. Large increases in waste, particularly of comber noils, and important decreases in yarn strength resulted consistently. Little or

no sun-drying is being done now that the use of artificial driers is so widespread.

Compression of Bales To Different Densities

Some other tests recently conducted in our spinning laboratories that are of interest to manufacturers have to do with the packaging of cotton. A series of investigations now being conducted involve problems of the marketing and handling of cotton from the field to the mill. One important phase of this work deals with the present status and future possibilities of baling.

It appears that one of the factors contributing to the disreputable appearance of so many bales of American cotton is the handling they receive at the compress, where the bales are reduced in size by additional compression so that advantage may be taken of lower freight rates. A promising solution seems to lie in the original compression of cotton at the gin to a density equal to that of present-day standard-density bales. Before proceeding very far with this development, it has seemed desirable to determine what effects, if any, the compression of cotton to different densities at the time of ginning has upon the utility of the lint.

One rather thorough study of this question has already been made in the service's spinning laboratories. Here, a number of short and long-stapled cottons were tested. An analysis of the results with respect to waste, yarn strength, yarn appearance, and general manufacturing performance revealed only slight differences among the different samples. Although the findings obtained to date appear promising, additional tests must, of course, be made of this factor before sufficient data are obtained as a basis for final conclusions. Furthermore, the question of handling the more densely packed bales must be thoroughly investigated before any changes from the present system are recommended.

The Cutting of Bales During Compression

Probably every mill superintendent who uses cotton packaged in standard or high density bales has, at one time or another, observed the presence of cuts of varying degrees of severity in the cotton. These cuts, which range from an inch or two to 12 inches or more in length and depth, are commonly referred to as "air cuts," on the assumption that they are caused by the rapid expulsion of air during the compression of the bale. It has also been assumed that these cuts, of which as many as 20 have been observed in a bale, are injurious to the spinning value of the cotton.

The subject of bale cutting has been investigated rather thoroughly by this service in co-operation with the Bureau of Agricultural Chemistry and Engineering. Strangely enough, it was found that these so-called "air-cuts" are not caused by escaping air, but the shearing action during compression of two adjacent portions of the bale which differ in density. A number of factors have been found to contribute to such cutting, some of which relate to the original formation of the bale, others to mechanical features at the compress, and still others to the condition of the cotton. Now that the causes of the cutting of bales are fairly well known, steps are being taken to eliminate them insofar as is possible.

In the meantime, it has appeared desirable to deter-

mine the degree, if any, to which the spinning value of a bale is reduced through the presence of cuts. Three bales, obtained from three different sections of the cotton belt, and each containing a large number of severe cuts, were delivered to the service's spinning laboratory for tests. From each bale a quantity of cotton was drawn which contained the cuts, forming a test lot with a concentration of cuts far in excess not only of a commercial mill mix but also of a single bale of cotton. A second lot was drawn from each bale, consisting only of cotton from the normal, uncut portions. Each pair of lots was subjected to thorough spinning tests.

The results showed that the concentrated sample of cut cotton yielded more waste and manufacturing fly, higher end breakage during spinning, weaker and somewhat more uneven yarns, and weaker tire cord. But these differences were all so small that when they were adjusted to a 500-pound bale of cotton they became insignificant. Thus, even if every bale in a mill mix were very severely cut, which probably never happens in actual practice, the damage would have no noticeable effect in the running of the mill or the quality of the product. It is believed, however, that the psychological effect of cut bales on cotton merchants and spinners justifies a rather concerted effort to eliminate bale cutting altogether. This is particularly true of American cotton in foreign markets, where it has to compete with other growths, most of which are packaged in a far more attractive manner than ours. Accordingly, work is going forward on this problem, with the hope that such bales will eventually disappear from the market.

The subject of bale types and densities, as well as of the cutting of bales, is discussed in detail in a report recently issued by the service entitled, "The Compression of Cotton, and Related Problems."

Tests of a Triple Hybrid Cotton

All the last three tests discussed gave results that were more or less negative; that is, they showed that from a practical point of view, recommended drying procedure, compression to high densities, and bale cutting do not injure the spinning utility. The fact that the results are essentially negative does not, of course, mean that they are lacking in value. But, lest this general discussion of spinning tests seem rather flat because the results are negative, let us consider some results of a definitely positive nature. In the course of some important genetics research conducted at Raleigh, N. C., by the co-operating Bureau of Plant Industry, a triple hybrid cotton was produced by crossing an Asiatic cotton, a lintless variety, and a well-known upland variety. (The chromosome numbers of the first two were doubled, from 13 to 26, with the use of colchicine, before being crossed with the upland cotton, which has 26 chromosomes.) X-ray tests were made of lint of the first generation, and the results were so unusual that it was planned to produce enough lint for a small-scale spinning test. Accordingly, a limited quantity of the triple hybrid was grown and ginned on a small laboratory gin, and the lint sent to the spinning laboratory for tests.

Most mill men know what to expect in the way of strength for 30s carded warp yarn. As a rule, a skein

(Continued on Page 45)

Practical Apprentice Training for Machinists

By E. A. Terrell, President

Terrell Machine Company

The following talk, delivered by Mr. Terrell at the Annual Convention of the Southern Textile Association June 13th, outlines the system of apprentice training launched by the Terrell Machine Co. in 1940. Anticipating the shortage of machinists and mechanics that has developed during the national emergency, the system adopted by this company not only will aid in producing competent machinists but enables worthy boys to earn their livelihood while they learn a trade.

I CONSIDER it a distinct honor to be invited to address the members of this Association on a subject so vital to the welfare of our nation today and tomorrow.

Past and present members of the Association have rendered great service to the growth of the textile industry, and your presence here today is ample evidence of your continued interest in future advances.

You have demonstrated within your own organizations that you can train men to do their jobs, and that you have the ability to build organizations properly supervised and co-ordinated to accomplish their objectives.

And one of the major objectives has been to increase production at lower cost while maintaining or improving the quality of your product. You know that the lowest paid employee is not usually the one who produces at lowest cost and that, conversely, it is the better trained, higher paid employee, who forms the backbone of your organization.

For all practical purposes we are today in a state of war. Modern wars are won by production, and production is the result of intelligent use of materials, machines, and trained men, plus the vital element of time.

We are entering this great test of strength with the mill stone of a 40-hour week around our necks. If we run our plants more than 40 hours we are charging ourselves time and a half for our own defense, and if we try to run two or three shifts we are confronted by a shortage of trained workers.

That shortage is going to become worse and worse as the defense program expands. Add to this the loss of men through enlistment or draft and it doesn't require any Solomon to predict that this tremendous production

program calls for an unprecedented amount of training of men.

It would seem to most of us, who learned to work when a day meant ten or twelve hours if necessary to get the job done, that the first thing to do would be to repeal the 40-hour work week to permit the maximum efficient use of the trained men we already have.

We have the example of France to warn us, but apparently even that example has not been enough to wean our political leaders from the stupid delusion of maintaining so-called "social gains." We can only hope that we shall not be called upon to pay the price France paid for the same stupidity.

Second, we must train men to do the jobs which have to be done. Most of you already have your own training plans for textile workers and you can, within a reasonable time, train needed personnel.

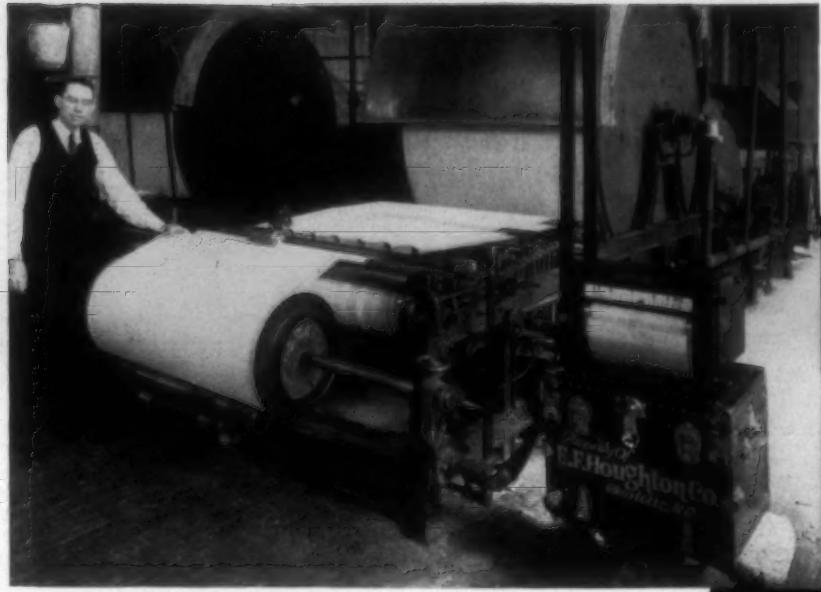
Most of you have your own shops for maintenance and repair and you can train some of the additional machinists so badly needed in the defense and allied industries. I urge you to do this in the interest of the nation and in your own interests as well, for you are going to lose some of your machinists when the defense program gets rolling. Moreover, there are comparatively few shops in the South, outside your industry, where men can be trained.

We fortunately began our training program before the emergency became so apparent. We studied the apprentice systems of several large shops and decided that the most effective method of training all-round first-class men would be to equip a separate shop, under a separate foreman selected for his interest in training, his general mechanical ability, and his attention to cleanliness and order.

The apprenticeship shop was opened in March, 1940, with five boys. The number was later increased to eight boys which is all we can accommodate without crowding. We now have thirteen apprentices, five of whom are operating machine tools in our main shop, and eight are employed in the apprentice shop. All have at least a high school education. Ages range from 16 to 21. On Monday, June 16, we will begin training a second shift of eight additional boys.

We made some mistakes. Our first foreman turned out

(Continued on Page 45)



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FOR WARP SIZING

S. C. Mill Men Discuss Carding, Spinning, Weaving

THE Spring Meeting of the South Carolina Division of the Southern Textile Association was held at the Drayton Mills Community House, Spartanburg, S. C., on Saturday, May 10, 1941, beginning at 10 o'clock. The Chairman, W. T. Morton, Overseer of Spinning at Monarch Mills, Union, S. C., presided.

The report of the first part of the discussion was published in the June 15th issue and contained discussion on plow grinding of card cylinder and doffer, grooved emery fillet and side grinding, increasing weight of sliver in cans through various methods. The latter part of the report in the June 15th issue was concerned with the results to be gained through adjusting the size of the hole in the trumpet to condense sliver and get more into the cans. The discussion continues, with G. G. Simmons, superintendent of Drayton Mills, presiding.

Mr. Simmons: Has it been determined that springs on the calender rolls are a good thing—that they are a good thing for us because they get more sliver in the can, if we do not try to go too far with it? Is that what most of you have found out? If you try to go too far with it you run into trouble—is that right?

Mr. Lockman: It makes too hard roving; it does not draft right.

Mr. Simmons: It does not draft right and does not run well on the cards.

Mr. DeBrule: We found that after putting on new trumpets, putting on smaller trumpets, from the calender roll to the doffer, we got more in the can. We do not use the springs at all.

Mr. Simmons: What would be the gross increase over the old method?

Mr. DeBrule: I think we get about 10 per cent more that way than with the springs.

Mr. Simmons: I mean how much are you getting than before you used either the springs or the new trumpets?

Mr. DeBrule: About 35 per cent.

Mr. Stutts: How many pounds can you put in the can?

Mr. DeBrule: Thirteen pounds.

Mr. Lockman: What is the weight of the sliver and the diameter of the trumpet?

Mr. DeBrule: 53-grain sliver; .0040 trumpets.

There is just one question I should like to ask. Has anybody noticed any difference in the ends down on the cards with the spring and without it?

Mr. Lockman: We have decidedly fewer ends down with the springs than we had without.

A Member: You are talking about ends down on the card or on the spinning?

Mr. Simmons: There are fewer ends down on the card and more down on the spinning.

Mr. DeBrule: That is what I am talking about. If you just go ahead in your mill and put these springs down on the card and weight it down, you have 50 per cent fewer ends down. If you are running a .53-grain sliver, it will weigh 75 grains there. You will not have any ends down on the card. If you put that spring on there, no matter what you do at the card the ends will not come down. With the trumpet replacing the spring you get the same amount in the can, or more. If anything goes wrong at the picker and you make a thick place in the lap, if you have that spring it will run through.

Mr. Simmons: In other words, we have at least two men, I believe, who feel that the spring forces the bad work through and that you will not have the ends down on the card but will have them somewhere else later?

Mr. DeBrule: That is right.

Mr. Simmons: Have you found that true, Mr. Lockman?

Mr. Lockman: That is correct, but I still hold that the size of the hole in the trumpet should be right for the size of sliver you are putting through.

Mr. Simmons: Whether you are using the spring or not?

Mr. Lockman: Yes, whether you use the spring or not.

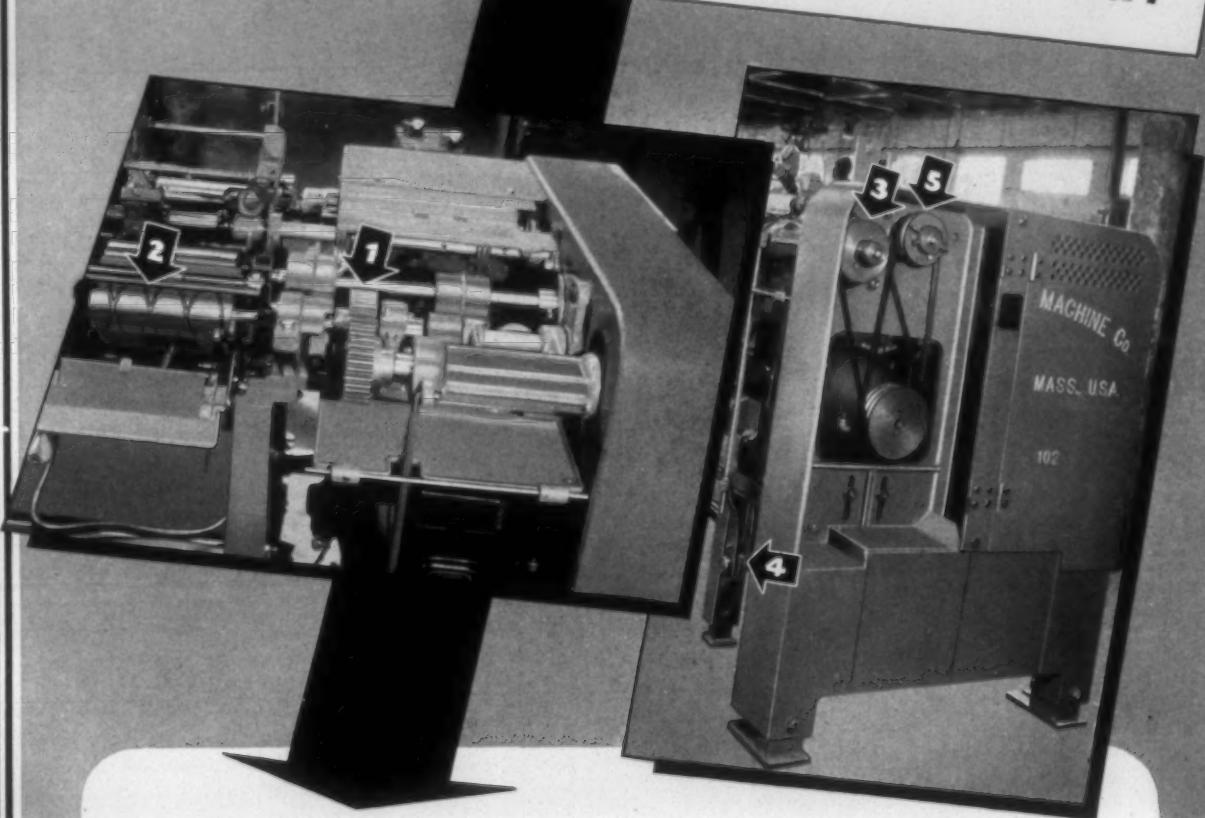
Mr. DeBrule: About 50 to 55-grain sliver is the usual weight, I imagine. What size trumpet do you use for that?

Mr. Lockman: 7/64. We went from $\frac{1}{8}$ to 7/64.

Mr. DeBrule: We put this spring on 200 cards at Springs Cotton Mills and put 40 per cent more in our cans. We had no trouble at all. That was fine, and it went all right; we did not find any ill effects. Some said the breaking strength went up and down. We tried that

(Continued on Page 47)

Flexibility-Economy-Quality ... AND A FEW REASONS WHY



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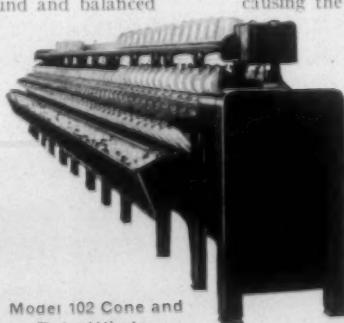
2. Case hardened, centerless ground and balanced steel traversing cam (in this case for winding on wood tubes for twister creels). Long life, positive action.

3. Split sheave on jackshaft which drives the camshaft through gears. This sheave is held together by a spring so that the V belt runs intermittently on the smaller and larger diameter, thus

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Georgia Mill Men Agree to Voluntary Power Cut at Sea Island Meeting

THE most important action taken at the annual meeting of the Cotton Manufacturers' Association of Georgia at Sea Island last month was the decision to voluntarily curtail their consumption of power during the present shortage.

Warned by Charles A. Collier, vice-president of Georgia Power Co., that there was a possibility that the Government would step in and force mandatory priority on all Georgia power in favor of the aluminum industry, the mill men passed a resolution asking the power company to enforce mandatorily a one-third reduction of power to mills when and if it became necessary.

The plan, which Fuller E. Callaway, Jr., a member of the committee, stated would probably go into effect with the week of June 9th, embodied the following points:

1. The Georgia Power Co. shall have mandatory power to put the plan into effect with Georgia cotton mills.
2. The allotment of current to each mill shall be two-thirds of the average consumption of that mill.
3. The allotment shall be based on the maximum kilowatt hours consumed by such mill between 6 a. m. on Monday and 12 noon Saturday during the four weeks to be covered by the June 1, 1941, billings of the power company.
4. Mills electing to do so may obtain power to operate their plants to full capacity from 12 noon Saturday to 6 a. m. Monday. This is possible because the power company can "haul in" power from South Carolina over the week-end, when the regular industrial and defense loads are greatly lowered.

It was explained, in connection with this proposed Sunday operation, that a mill using this time would lose, under the new plan, only six working hours in the week. By restoring to Sunday operation mills also would be able to maintain their power rate minimum per kilowatt hour which probably would increase by the 33 1-3 curtailment.

Sunday operation also would have something to mills in the way of unemployment benefits.

Leeway Permitted

5. Mills will be permitted to use their power allotment as they see fit, that is, they may run two-thirds of their plant for the usual period, or they may shut down one-third of their plant and run the other two-thirds full time. This is for a week's period only and would not be applicable to a month-period.

6. Where a mill has multiple meters, that is, a number

of plants, power will be allotted according to total power.

7. Power would be allotted to all mills alike, whether they are working on defense orders or not.

It was stated for Commissioner Hewitt, of the State Department of Labor, that permits for Sunday work will be made available to all mills making proper application.

The fact that the curtailment is mandatory, with the Georgia Power Co. holding the mandate, will absolve mills from damages that might be asked by buyers in the event contracts could not be carried out by the mills.

New Officers Elected

George P. Swift, sales manager and vice-president of the Muscogee Mfg. Co., Columbus, Ga., was elected president of the Georgia group.

Other officers elected were: Vice-president, Julian T. Hightower, vice-president of the Thomaston Cotton Mills, Thomaston, Ga.

Treasurer, G. I. Parmenter, superintendent, Goodyear Clearwater Mills Co., Atco, Ga.

T. M. Forbes was re-elected secretary.

The following directors were elected to serve until 1944: Walter M. Wellman, president, Oconee Textile Co., Whitehall, Ga.; A. Illges, vice-president, Swift Spinning Co., Columbus, Ga.; S. H. Swint, president, Sibley Mills, Augusta, Ga.; Julian M. Longley, agent, American Thread Co., Dalton, Ga.

Miller Urges Preparation for Normal Times To Come

J. A. Miller, retiring president, urged mills to prepare themselves for the time when conditions get back to normal. He said:

"A minimum of 10 per cent and perhaps a maximum of not more than 20 per cent of the capacity of our industry is needed for defense purposes. This factor has accentuated the need of excessive production, and it is commendable the way the cotton mills have patriotically responded and have sped up their production to meet this annual demand."

"We should not fail to bear in mind, however, that this demand will not continue indefinitely. There will come a time, sooner or later, when it will get back to normal, and if past experience is any criterion, the reaction may make consumption fall below normal. In adjusting our schedules, therefore, we should bear in mind the fact that we must be guarding against the peril of sub-normal conditions which are probable."

"It is quite definite that the Wage-Hour Division in

Washington is determined to limit, if not eliminate, the custom of making deductions from the wages of textile employees. It has seemed to be unwilling to allow workers to hypothecate their wages for the sake of securing an advance of funds for the necessities of life. This affects deductions, and, we understand, union dues.

"It would be most unfortunate for the textile workers of the South if, in an effort to check imaginary ills, the Wage-Hour Division and the Department of Labor would deprive thousands of workers of the only means of credit which has been available to them during recent years. It is probably the part of wisdom to take no steps in changing our program until and unless the Wage-Hour Division says that we must."

"In the matter of taxes, it is quite apparent that we are entering a period in which there will be a tremendous increase in Federal taxes. It is commendable that the Governor of Georgia has taken drastic steps to reduce public and State expenditures in the fact of the necessitated heavy increase in Federal taxes.

"I am not setting myself up as a tax expert, but it is the opinion of a great many men who are that it is not necessary for the Federal Government to increase Federal taxes to the extent now contemplated. The Treasury's idea of higher taxes runs to 3½ billion dollars per year, piled on top of present levies. The increase would

result, says the Treasury, in total tax payments of 12 2-3 billions of dollars annually, and that, the Treasury adds, is the amount the Government will need."

If the Treasury estimates of 1939 and 1940 were sound, on the basis of a national income of 90 billion dollars, tax receipts would be a total of 12.3 billions of dollars with no increase in tax rates, Mr. Miller declared.

In addition to the address of the president, speakers included Hon. Eugene Cox, Georgia Representative in the U. S. Congress, who emphasized the part which organized labor has played in the slowing up of national defense preparations through strikes; Douglass Stockham, of Birmingham, Ala., and Dr. Gus Dyer, professor of economics and sociology at Vanderbilt University. Dr. Dyer is of the opinion that the United States has wandered far from the established American plan of living and government during the last several years, but concluded that he felt when Hitler had been defeated the reaction would swing the country back again toward government by the people.

Ted Forbes made a brief report, as secretary, of the activities of the association during the year.

Norman Elsas, of Fulton Bag & Cotton Mills, Atlanta, reported on the educational plan which had been put over so successfully in Georgia schools by the association's

(Continued on Page 42)

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Own the Mill



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RELATIVE VALUES OF COMBED YARNS 10's to 24's

(Based upon Manufacturing and Cotton Costs of May 28, 1941)
COMPARED WITH CEILING PRICES
(Fixed by Government Decree)

Showing Extent to which Numbers 10's to 20's were Penalized

	Yarn Number Used as Basis								30's Per Pound
	10's	12's	14's	16's	18's	20's	22's	24's	
Ceiling Price									.42000
Deduct Selling Cost									.02100
									.39900
Less Freight									.00850
									.39050
Less Packing Materials									.00550
									.38500
Less Cotton and Waste 13.25 + 2.50 on +74									.21283
Manufacturing Margin									.17217
Manufacturing Margin (30's)	.17217	.17217	.17217	.17217	.17217	.17217	.17217	.17217	
Manufacturing Ratio to 30's	.650	.680	.707	.739	.769	.799	.829	.859	
Margin for Yarns Shown	.11191	.11708	.12172	.12723	.13240	.13756	.14273	.14789	
Add Cotton and Waste 13.25 + 2.00 on +74	.20608	.20608	.20608	.20608	.20608	.20608	.20608	.20608	
	.31799	.32316	.32780	.33331	.33848	.34364	.34881	.35397	
Add Packing Materials	.00550	.00550	.00550	.00550	.00550	.00550	.00550	.00550	
	.32349	.32866	.33330	.33881	.34398	.34914	.35431	.35947	
Add Freight	.00850	.00850	.00850	.00850	.00850	.00850	.00850	.00850	
	.33199	.33716	.34180	.34731	.35248	.35764	.36281	.36797	
Add Selling Cost	.01747	.01773	.01798	.01827	.01854	.01881	.01908	.01936	
Total Relative Values	.34946	.35489	.35978	.36558	.37102	.37645	.38189	.38733	
Ceiling Prices	.32000	.33000	.34000	.35000	.36000	.37000	.38000	.39000	
Relatively High (H) or Too Low (L)	.02946 L	.02489 L	.01978 L	.01558 L	.01102 L	.00645 L	.00189	.00267	

Calculations exclusive of Waste Sales and Rents

RELATIVE VALUES OF COMBED YARNS 26's to 50's

(Based upon Manufacturing and Cotton Costs of May 28, 1941)
COMPARED WITH CEILING PRICES
(Fixed by Government Decree)

	Yarn Number Used as Basis							30's Per Pound
	26's	28's	30's	36's	40's	50's		
Ceiling Price								.42000
Deduct Selling Cost								.02100
								.39900
Less Freight								.00850
								.39050
Less Packing Materials								.00550
								.38500
Less Cotton and Waste 13.25 + 2.50 on +74								.21283
Manufacturing Margin								.17217
Manufacturing Margin (30's)	.17217	.17217	.17217	.17217	.17217	.17217	.17217	
Manufacturing Ratio to 30's	.906	.953	1.000	1.141	1.253	1.576		
Margin for Yarns Shown	.15598	.16408	.17217	.19645	.21573	.27134		
Add Cotton and Waste								
13.25 + 2.50 on +74	.21283	.21283	.21283					
13.25 + 3.00 on +74								
	.36881	.37691	.38500	.41604	.43532	.49093		
Add Packing Materials	.00550	.00550	.00550	.00550	.00550	.00550		
	.37431	.38241	.39050	.42154	.44082	.49643		
Add Freight	.00850	.00850	.00850	.00850	.00850	.00850		
	.38281	.39091	.39900	.43004	.44932	.50493		
Add Selling Cost	.02014	.02056	.02100	.02262	.02363	.02656		
Total Relative Values	.40295	.41147	.42000	.45266	.47295	.53149		
Ceiling Prices	.40000	.41000	.42000	.45000	.47000	.55000		
Relatively High (H) or Too Low (L)	.00295	.00147	xx	.00266	.00295	.01851 H		

Calculations exclusive of Waste Sales and Rents

Compiled from Survey Made by
MOORE & THIES
Textile Cost Specialists
Charlotte, North Carolina

Note—After this survey was made OPACS authorized an increase in the minimum prices of combed yarn 24's and below

John T. Wigington Heads New Cotton Research Division of Cotton-Textile Institute

Establishment by the Cotton-Textile Institute of a division of cotton research and appointment of John T. Wigington as its first director were announced recently by Dr. Claudius T. Murchison, president. The division is being established at Clemson College in South Carolina.

The purpose is to bring to the cotton industry the same scientific attention as has been accorded to cotton substitutes, Dr. Murchison said.

Mr. Wigington comes to his new post from the United States Agricultural Marketing Service at College Station, Texas, where he has been in charge of the cotton fibre and spinning research laboratories.

Stating that most of the fabrics and materials now competing with cotton in various applications "owe their success almost entirely to laboratory research," Dr. Murchison continued.

"The establishment of a division of research which will serve the entire industry is expected to bring to cotton the same degree of scientific attention which has been accorded to cotton substitutes. Its first function will be to survey all cotton research projects now under way in cotton manufacturing plants, college and university laboratories and Government agencies. This information, when assembled, will be analyzed and appraised and the findings made available alike to manufacturers and research specialists.

A second function will be to co-ordinate existing research activities for the purpose of mutual aid and the avoidance of duplication.

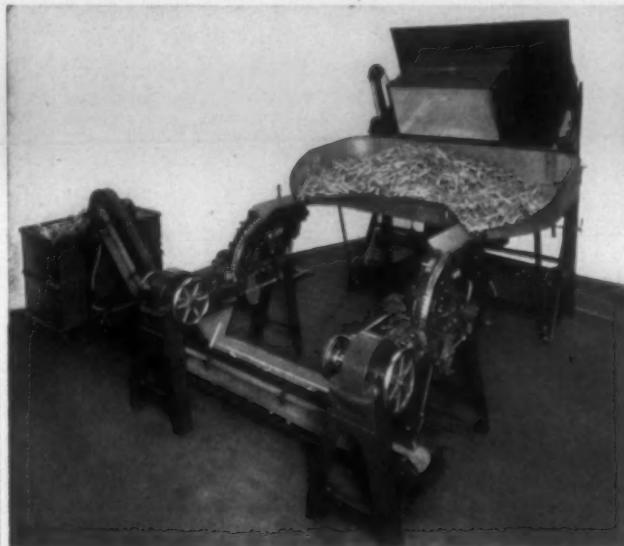
"A third purpose is to ascertain in what directions research activities can be guided with the most beneficial results and to formulate projects which will have the greatest practical value to industry and to cotton consumption."

The new office will maintain close working relationships with such groups as textile technologists, the Textile Foundation, the United States Institute of Textile Research, the United States Government laboratory in New Orleans, the textile schools and agricultural experiment stations, as well as with corporation laboratories throughout the industry.

A graduate of Clemson College in 1923 with a B.S. degree in textile engineering, Mr. Wigington began his career in cotton at the age of 15 when he became a textile operative in the Orr Cotton Mills at Anderson, S. C. Subsequently he rose to the position of mill superintendent, serving in this capacity the Seneca Co. (now Lonsdale Co.) and the Edna Mills Corp. at Reidsville, N. C. For a time he was associated with the Textile Bag Manufacturers' Association, where he completed several projects designed to improve the quality and widen the use of cotton bags.

He has written a number of technical studies relating to fibre qualities, to spinning methods and machinery and to the appraisal of cotton varieties and the attainment of required yarn specifications. He is a member of the Arkwrights, Inc., which is a research organization of the Southern Textile Association, and is a native of South Carolina.

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S. T. A. Convention Best Ever

THE Thirty-third Annual Convention of the Southern Textile Association was declared by those present to be one of the best that the Association has held. With the largest number in attendance in recent years, the technical sessions were marked by exceptionally good addresses, and the banquets and sports events went off to the pleasure and satisfaction of all concerned.

As is the custom, the convention opened with the annual banquet of the Associate Members' Division, at which event one of the best floor shows seen in many years was the feature. The entertainment committee was fortunate in being able to book this 24-person troupe in a stop-over performance between engagements at Norfolk and Savannah.

Another feature of the Associate Members' banquet was the presentation, by David Clark in behalf of the TEXTILE BULLETIN, of engraved cups to all of the past chairmen of this division of the Southern Textile Association and to the retiring chairman. This recognition of service to the Association is to be an annual event in the future.

Officers Elected

New officers elected during the convention include the following:

President: J. O. Thomas, personnel director, Marshall Field & Co., Spray, N. C.

Vice-President: Robt. T. Stutts, superintendent, Woodside Cotton Mills, Simpsonville, and Fountain Inn, S. C.

Executive Secretary: Marshall Dilling, superintendent and secretary, A. M. Smyre Mfg. Co., Gastonia, N. C.

Chairman of the Board of Governors: T. C. Pegram, superintendent of the Erwin Cotton Mills Co., Cooleemee, N. C.

New members of the Board of Governors were elected as follows: M. Weldon Rogers, general superintendent, Chadwick-Hoskins Co., Charlotte, N. C.; E. W. Seigler, superintendent, Grendel and Panola Mills, Greenwood, S. C.; B. M. Bowen, superintendent, Salisbury Cotton Mills, Salisbury, N. C.; Virgil E. McDowell, overseer carding and spinning, Rosemary Mfg. Co., Roanoke Rapids, N. C.; E. H. Holder, Consolidated Textile Corp., Lynchburg, Va.

At the Associate Members' banquet Thursday evening, presided over by Ernest J. Eaddy, retiring chairman, the officers and members of the Board of Governors were special guests and were introduced by Chairman Eaddy. New officers for this division were elected as follows:

Chairman: John C. Turner, Chas. Bond Co., Atlanta, Ga.

Vice-Chairman: Falls L. Thomason, N. Y. & N. J. Lubricant Co., Charlotte, N. C. (Mr. Thomason's father, L. W., was the first chairman of the Associate Members' Division).

Secretary: Junius M. Smith, TEXTILE BULLETIN, Charlotte, N. C.

Friday Morning Session

The convention was formally opened Friday morning, June 13th, with President Frank D. Lockman presiding. Following the invocation, President Lockman made a short talk, saying:

"Fellow Members of the Southern Textile Association, Ladies and Gentlemen:

"I feel that I have been highly honored in that I have served as your president for the past year. I don't know exactly how long I have been a member of this association, but I do know that I have been a member since 1912. In looking over some of my old keep-sakes, I found this button, and on it I find this information: Eleventh meeting Southern Textile Association, November 29-30, 1912, Chattanooga, Tenn. No. 535.

"I have always felt that this is one organization that has been well run and has always worked for the good of the textile industry as a whole. In my opinion, it has never been a one-sided affair, but has been four-square, and has handled its business that way.

"The sectional meetings during the past year have been well attended as a whole, and I believe the discussions have been and will be a great help to the industry. And right here I wish to thank each one who has had part in making these meetings possible. Also I wish to thank the ones who have assisted me in my work during this year, especially Mr. Marshall Dilling.

"I shall not take up much of our valuable time trying to tell you things, because I realize that we have men here who are trained in the line of information that we need; and they will inform us. I do want to say that we are going through a very busy time right now. Supplies for our plants are getting scarce and hard to obtain; also most of the idle operatives have been given work, and it looks as though we will have a shortage of labor.

"Also, I think we should take notice that we are going to be called on to sacrifice in a great many ways so that our National Defense can be strengthened to meet any emergency. However, I have no fear that this industry will not be willing to make the sacrifices required.

"I am probably a little older than some of you young men and I remember the hardships and sacrifices of the World War. There were certain days each week that we were not allowed to burn steam coal to heat our boilers, and we went out and cut wood and used it instead. There were days each week when we were not allowed to use sugar, wheat bread or meat. Well, we just did without those foods on those days. It appears that we are approaching similar conditions now, and my advice is to be

(Continued on Page 36)



MR. & MRS. J.O. THOMAS
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NEW VICE-PRESIDENT →
ROBT. T. STUTTS



AWARD FOR RETIRING
PRESIDENT LOCKMAN

GOVERNOR MAYBANK



Mill News

ANNISTON, ALA.—The Marylin Mills, which have taken over the buildings of the former Lengle Hosiery Mills, will manufacture yarns from rayon and wool mixtures. French Campbell is local manager.

ANNISTON, ALA.—The Elmar Hosiery Mill's have taken over the machinery of the former Coosa Textile Co. and will manufacture. They will move to a new building in a few weeks. M. H. Brotrian is local manager and superintendent.

LUMBERTON, N. C.—The Star Union Co., of New York City, is to establish a plant here for the manufacture of pajamas, play toggs and various other garments.

The plant will be located in the old Ida McLean Mills building, which has been closed down for some time.

SPRINGFIELD, TENN.—In co-operation with the defense program, guards have been assigned, to full time duty to protect the Springfield Woolen Mills from any acts of sabotage or other attempts to interfere with the plant or production, it was stated here.

CHERAW, S. C.—The Cheraw Hosiery Co. has been purchased by Harry A. Kelly and James O'Conner, of the Whitehall Knitting Co., Mt. Holly. They have severed their connections with the Whitehall Knitting Co. and will devote their time to the Cheraw plant, which has 8 42-gauge full-fashioned knitting machines.

ROANOKE RAPIDS, N. C.—A fire, believed to have been started from an electric motor, broke out in the weave room of the Rosemary Mfg. Co. here recently. When the loom caught fire a sprinkler system in the plant was set off, extinguishing the fire, but considerable damage was done by the water.

THOMASVILLE, N. C.—Expansion plans of Amazon Cotton Mills include a three-story addition to the waste house at a cost of \$40,000 to \$50,000, and a two-story office building, plans for which are nearly complete, and which will entail expenditure of \$30,000 or more.

Plans for the waste house addition were drawn by J. N. Pease & Co., Charlotte, engineers and architects.

SILER CITY, N. C.—An addition to Siler City Hosiery Co. plant to house a new humidity and temperature control system has been started. Some 2,000 square feet of floor space will be contained in the addition, according to General Manager W. W. Sharp, Jr.

The addition will enable the plant, which employs around 200 persons, to increase its production, he added. The new structure will be completed about July 10th, provided steel needed in construction work can be secured.

MONROE, GA.—Henry B. McKoy Co. has been awarded a contract for construction of an addition to the plant of the Monroe Cotton Mills. J. E. Sirrine & Co. prepared the plans.

HICKORY, N. C.—The Menzies Co. is the new name of the company formerly known as the Henderson-Menzies Co., here. The company is now installing equipment for dyeing half hose and anklets. Sterling Menzies is proprietor.

ATHENS, ALA.—Successful operation of the college operated full fashioned hosiery mill here has resulted in a program to double the size of the plant. Knitting is done by students of Athens College, working part time, to defray their expenses.

WOODRUFF, S. C.—A new brick office building being constructed at Mills Mill of Woodruff will contain three private offices and two larger general offices.

Other recent improvements in the village include installation of a lighting system at Ligon Baseball Park and construction of a six-room parsonage for the Rev. B. M. Wynn, pastor of the Baptist Church.

HICKORY, N. C.—The Brown Hosiery Mill, of this place, is equipped with 30 S&W HH knitting machines for the production of men's half hose. The plant also does commission finishing of both half hose and ladies' full fashioned hose. P. J. Brown, proprietor, is also owner of the P. J. Brown Full Fashioned Hosiery Mills.

DANVILLE, VA.—The Riverside & Dan River Cotton Mills Co. has decided to merge the Riverside mill offices with those at Schoolfield as an economy measure and consolidation will soon be under way.

The old Riverside office, which was the head office of the mills during its earliest days, will be rented for commercial purposes.

It was stated by a mill spokesman that all of the employees in the office would be taken care of.

The company is engaged on major internal revisions in order to reduce overhead expense.

ANDERSON, S. C.—Offices of the purchasing department of the Gossett Mills of Anderson, Chadwick-Hoskins Co., of Charlotte, N. C., and the Martinsville Cotton Mill, of Martinsville, Va., have been moved from Charlotte to Anderson.

S. Frank Jones, purchasing agent of the mills, and Mrs. Jones and family have moved to Anderson and will occupy a home in North Anderson.

Offices of the purchasing department are located at the executive offices of the Gossett chain at the mills here.

FORT PAYNE, ALA.—The name of the Goodwill Hosiery Mills has been changed to the M. G. Clark Hosiery Mill. The proprietor and manager is M. G. Clark. They operate 23 machines on elastic top half hose.

CONOVER, N. C.—The Catawba Valley Finishing Co., recently established here, is engaged in dyeing and finishing half hose. The proprietor is V. W. Jenkins, who was formerly superintendent of the Whenball Hosiery Mills, Inc., Newton, N. C.

HICKORY, N. C.—A new hosiery concern for Hickory is the Marietta Hosiery Co., at 1212 11th Ave. F. W. Clark is owner and E. R. Hunt, Jr., is manager. The concern does not operate any machines, but finishes and packages full fashioned hosiery.

MOUNT AIRY, N. C.—Machinery is being placed in the new plant of the old Colony Knitting Mills. The new company occupies a building on East Oak Street and will feature a line of knitted sweaters and scarfs. It is owned by Joe W. Brock and O. V. Radecky, both of Mount Airy.

NEWTON, N. C.—At the Yount Hosiery Mills 12 S&W B5 machines have been added, bringing the total to 42. Other additional machinery recently added includes 8 loopers, 1 sewing machine, 1 clipper, 1 dye machine and 24 boards. W. S. Yount is president, L. L. Green, superintendent.

GIBSONVILLE, N. C.—The Marlee Full Fashioned Hosiery, Inc., of this place, has been declared bankrupt and the machinery offered for sale. The mill, which manufactures full fashioned ladies' hosiery, operated 10 machines, 42 and 45-gauge. They finished their hosiery at the Long Finishing Co., Burlington, N. C.

DUNN, N. C.—The Harnett County Hosiery Mills,

Inc., twice sold at auction recently, will reopen here as the B. & G. Hosiery Mills.

George L. Cannady, prominent local business man and official of the firm, bought in the mill at the first auction, the bid was raised and he also purchased it again at the last.

Production is expected to be resumed at once. The mill turns out ladies' full fashioned hose.

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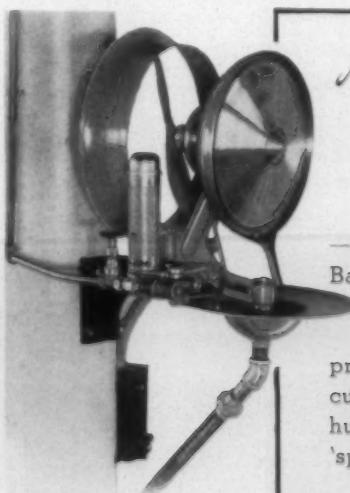
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Personal News

French Campbell is to be manager of the new Marylin Mills, Anniston, Ala.

Wade Hearn has been appointed superintendent of the Edna Mills Corp., Reidsville, N. C.

A. J. Mitchell has been named secretary of the Shamrock Damask Mills, Landrum, S. C.

E. F. Magill has accepted the position of president of the Whitehall Knitting Mills, Mt. Holly, N. C.

R. R. Hewitt, Jr., is now superintendent of the Bell Hosiery Corp., Suffolk, Va.

J. E. Shields is now superintendent of the Cherokee Hosiery Mill, Hickory, N. C.

R. L. Tilley is now local manager of the Clay County Products Co., Green Cove Springs, Fla.

A. A. Oliver has resigned as superintendent of the Irene Cotton Mills, Taylorsville, N. C.

Paul D. Jennings is now general manager of the Bell Hosiery Co., Suffolk, Va.

C. L. Jones is now superintendent and manager of the Wilson, N. C., plant of Sidney Blumenthal & Co.

John Patterson, Jr., is now assistant treasurer of the Goodyear Decatur Mills, Decatur, Ala.

Ray J. Herflecker, of Monroe, N. C., has accepted the position of superintendent of the Whitehall Knitting Mills, Mt. Holly, N. C.

M. H. Grotian is superintendent of the Elmar Hosiery Mills, which has taken over the plant of the Coosa Textile Co., Anniston, Ala.

G. K. Byrd has been promoted from second hand to overseer of No. 2-A weaving at the Riverside & Dan River Cotton Mills, Danville, Va.

A. J. Corpening, formerly manager of the Hardin Mfg. Co., Worth, N. C., is now superintendent of the Irene Cotton Mills, Taylorsville, N. C.

Otto Cox has been promoted from loom fixer to second hand in the No. 2-A weave room of the Riverside & Dan River Cotton Mills, Danville, Ga.

J. G. Chapman has been promoted from the position of superintendent to that of general superintendent of the Eagle & Phenix Mills, Columbus, Ga.

Bill Parker is now assisting James Grimes in the shirt-ing and sport-wear division of the New York office of the Riverside & Dan River Cotton Mills.

J. G. Neal has succeeded W. L. Taylor as superintend-ent of the Sellers Mfg. Co., Saxapahaw, N. C.

R. A. Butler has succeeded Chas. H. Boyd as superin-ten-dent of the Spray (N. C.) Cotton Mills.

S. E. Britt is now superintendent of the Hart Cotton Mills, Tarboro, N. C.

H. W. Little has succeeded T. C. Coxe as president of the Anson Mfg. Co., Wadesboro, N. C.

W. N. Boyd has succeeded R. T. Watson as secretary and treasurer of the Peck Mfg. Co., Warrenton, N. C.

F. H. Cunningham has succeeded the late Pat McGar-ity as superintendent of Mills Mill, Greenville, S. C.

F. M. Tidwell is now superintendent of the J. W. San-ders Cotton Mill, Starkville, Miss.

B. M. Murray is now superintendent of the Long Fin-ishing Mills, Inc., Burlington, N. C.

Dan C. Minich is now superintendent of the Queen Ann Mills, Ellenboro, N. C.

Carl Mangum has accepted the position of superintend-ent of the Birmingham (Ala.) Textile Co.

Walter R. Lynch has succeeded Jas. Carson as superin-ten-dent of the Killingly Worsted Mill, Stony Point, N. C.

G. G. Whitesides is now superintendent of D. H. Mau-ney & Sons Mfg. Co., Maiden, N. C.

J. B. Williams is now superintend-ent of the Aponaug Mills, West Point, Miss.

C. Covil is now superintendent of the Advance Thread Co., Hendersonville, N. C.

A. Stone is now secretary and superintend-ent of the Southern Silk Mills, Kernersville, N. C.

W. L. Landau, formerly of McComb, Miss., is now superintend-ent of the Valdese Weaving Co., Valdese, N. C.

O. S. Shelton is now general overs-eez of spinning, spool-ing, twisting and warping at the Itasca (Tex.) Cotton Mfg. Co.

Geo. G. Sharpe, formerly secretary and treasurer of the Pickett Hosiery Mills, Burlington, N.C., is now president and treasurer of that company.

S. J. Johnston has succeeded J. H. Faircloth as superintendent of the Marshall Mill & Power Co., Marshall, N.C.

Joe T. Nichols, office manager of the Langdale, Ala., Division of the West Point Mfg. Co., has been elected president of the Langdale Lions Club.

C. O. Roberson, Jr., treasurer of the Elizabeth City Cotton Mills, is now also filling the position of superintendent.

A. C. Dunson, superintendent of the Dunson Mills, LaGrange, Ga., has also been elected president of the company.

George B. Wilkinson has been appointed Southern representative of C. A. Auffmordt & Co., New York City. Mr. Wilkinson's office will be at 613 Johnston Building, Charlotte, N.C.

R. H. Chase has succeeded W. Y. Ball as superintendent of the Monroe (N.C.) Mills Co., and W. B. Harris as superintendent of the Union Mills Co., of the same place.

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INC.

ATLANTA, GEORGIA

H. A. Newton, of Dover, N. H., has become general superintendent of the Columbia, S. C., division of the Pacific Mills.

J. N. Edens has been elected president of the Corsicana (Tex.) Cotton Mills, succeeding the late R. L. Hamilton.

S. A. Summey, superintendent of the Alexander Mfg. Co., Forest City, N. C., has been appointed a member of the Blue Ridge Parkway, scenic highway through the mountains of North Carolina and Virginia.

Garnett Andrews, president of the Richmond Hosiery Mills, Rossville, Ga., has received an honorary diploma from Virginia Military Institute, which he attended for three years, 1886 to 1889.

Fred W. Symmes, president of Nuckasee Mfg. Co., and Union-Buffalo Mills, Union, S. C., has given the Greenville, S. C., Y. M. C. A. an open air chapel for its mountain retreat, Camp Greenville.

B. W. Whorton has been transferred from the position of assistant superintendent of the Langdale, Ala., plant of the West Point Mfg. Co., to that of superintendent of the Dixie Cotton Mills, LaGrange, Ga., succeeding the late Albert Lehmann, Jr.

Doland L. Lee, Jr., has resigned as head professor of textile engineering at Texas Technological College, Lubbock, Tex., to accept a position as senior cotton technologist at the Southern Regional Research Laboratory, New Orleans, La.

Mrs. W. M. McLaurine, wife of the secretary of the American Cotton Manufacturers' Association, Charlotte, N. C., has been named chairman of the Charlotte Y. W. C. A. committee to lead in the local U. S. O. drive for funds.

Fred W. Glover, head of the Textile Mill Supply Co., Charlotte, N. C., has had word from his son, Edward, that he has arrived in Lisbon on his way home from Yugoslavia, where he has been a representative of the Socony Vacuum Oil Co. in that country for a number of years.

Cash M. Stanley, Auburn Textile School graduate, has been named head professor of textile engineering at Texas Technological College, Lubbock, Tex. Mr. Stanley has been with the college since 1937 as assistant professor. He is a member of Tau Beta Pi, Phi Kappa Phi, and Phi Psi.

S. D. Pridmore has resigned from the position of overseer of weaving at Abbeville (S. C.) Mills, to accept a position as representative for Snap-On Tools, with headquarters in Greenville, S. C. His territory will include the State of North Carolina.

John W. Arrington, Jr., vice-president and treasurer of Union Bleachery, Greenville, S. C., has been named by Rotary International officials in Chicago as chairman of the club program planning assembly for the 1941 convention of Rotary in Denver, Colo., June 15th-20th.

Luther Hodges, general manager of the manufacturing division of Marshall Field & Co., was recently initiated as an honorary member of the Alpha Chapter of Phi Psi, honorary textile fraternity, at Philadelphia.

P. D. Kaley Wins Award At N. C. State Textile School

Paul Dudley Kaley, a senior in the Textile School of North Carolina State College, has been awarded the medal presented annually by the National Association of Cotton Manufacturers to the most proficient Textile student in the graduating class.

Mr. Kaley, a native of Scranton, Pa., has established an enviable scholastic record at N. C. State College. At the annual scholarship day exercises, he was awarded the Sigma Tau Sigma cup for the highest scholastic average in the senior class.

In addition to high scholarship attainments, he has taken part in many campus activities and during the past year served as editor of the College Annual.

Mr. Kaley has accepted a position with the Scranton Lace Works at Scranton, Pa.

D. S. Collard To Rock Hill, S. C., for Warwick Chemical

Donald S. Collard, superintendent for a number of years in charge of manufacturing at the Warwick Chemical Co., West Warwick, R. I., has been transferred to their Rock Hill, S. C., plant with the title of resident manager.

H. R. Owings Joins Hubinger Co.

Horace R. Owings, Clemson College, class of 1933, is now associated with the Hubinger Co., of Keokuk, Iowa, manufacturers of corn starches, syrups, sugars, etc., in their textile service division.

Mr. Owings' headquarters are at Gray Court, S. C.

G. M. Fletcher Heads Western New England N.I.A.A.

G. M. Fletcher, advertising manager, Stanley Works, New Britain, Conn., was elected president of the Industrial Advertising and Marketing Council, Western New England Chapter of the N.I.A.A., at the group's last regular meeting of the season at Hartford. Other officers elected were H. E. Merrill, General Electric Co., Bridgeport, first vice-president; G. P. Lonergan, The Bristol Co., Waterbury, second vice-president; and E. N. Bidwell, Whitney Chain & Mfg. Co., Hartford, secretary-treasurer. C. W. Bostrom, Jr., Edwards & Co., Norwalk, and Fred C. Emerson, Spartan Saw Works, Inc., Springfield, Mass., were named directors for two-year terms.

Geo. H. Dunlap To Head Practical Textile Research Program

Prof. Geo. H. Dunlap, of the Textile Department of Clemson College, has been granted a one-year leave of absence and during that period will be Research Director for the Southern Textile Association and The Arkwrights.

The Textile Foundation, sometime ago, made an appropriation for practical research work to be conducted under the supervision of the Southern Textile Association and The Arkwrights and those organizations placed the research in charge of a committee composed of T. W. Mullen, Roanoke Rapids, N. C.; Paul B. Parks, Jr., Erwin, N. C., and R. T. Stutts, Fountain Inn, S. C.

Professor Dunlap is a graduate of Clemson College and took a special course in research at the Massachusetts Institute of Technology. He has been a member of the Clemson College faculty for twelve years.

Personnel Heads Named for Four West Point Mfg. Co. Mills

Following a policy inaugurated last year when Grady Bradshaw was made the director of personnel and public relations for the Lanett, Ala., mill, the West Point Mfg. Co. has recently selected men for similar posts in its textile plants at Riverview, Fairfax, Langdale, and Shawmut.

The newly-named directors are B. B. McGinty, Riverview; A. T. Hanson, Fairfax; W. H. Enloe, Langdale; and L. F. Underwood, Shawmut. All these men, except Mr. Hanson, have been connected with the local mills for a number of years.

Largest Class in Clemson History Is Graduated

Clemson, S. C.—The Clemson Agricultural College of South Carolina held exercises for the largest graduating class in the history of the school on May 31st, June 1st and 2nd. Out of the 346 graduates, 72 received their B.S. in textiles.

Even with this large class the Textile School does not have sufficient graduates to meet the inquiries from the industry. This same condition has prevailed for the past 13 years.

The following is the list of graduates:

Textile Chemistry: John Kuykendall Benfield, Jr., Smiley Milton Bush, James Ervin Cannon, Jr., Wade Hampton Carder, John Dean Christopher, Jr., Alvin Zack Cox, Maxey Stanly Crews, Lloyd Crawford Harmon, Jr., Richard Thacker Osteen, Jr., William Thomas Rhodes, Heyward Vance Simpson, Robert Phinizy Timmerman, George Sims Wham, Jr.

Textile Engineering: Eugene Allison, Samuel Marshall Beattie, Jr., Harry Graves Berry, Charles Elliot Bickley, Thompson Stokes Boland, Ray Charles Boswell, Henry Bradford, Jr., Henry Leroy Buchanan, Frank Cook Cheatham, Thomas Holloway Coker, Jr., Samuel Wesley Darrin, Jr., John Augustus Des Portes, Norman Ransdale Dicks, Edward Ervin DuBose, Jr., Edgar Whitfield Dunham, Jr., Grady Milford Dunlap, James Lawrence Edmonds, Nelson Vereen Gore, John Lewis Gregory, Jr., Jack Edward Hamilton, Grover Cleveland Henry, Floyd McRae Herndon, Robert Allen Hickerson, Donald Neal Hill, Charles Welcome Hite, John Wesley Howard, Eldon Douglas Hunter, Jr., Samuel Thompson Jenkins, Ralph Cameron Johnson, John Dargan Jones, Jr., George Walker Kirby, Jr., Thomas Simpson Klugh, William Leonard, William Henry Lowe, Paul William McAlister, William Thomas McCoy, William Haskell McKeown, James Fleming McMaster, Jr., John Henry

Marvin, Jr., Landis Dorine Morris, Anderson Chase Nalley, Jr., William Robert O'Shields, Samuel Evans Owen, Jr., Benson Clayton Parrish, Clarence James Pope, McKinney Hurt Ramsey, Jr., Hervey Hiram Robinson, DeWitt Javan Ross, Edgar Alfred Ross, Grover Leroy Smith, Jr., Hovey Dennis Smith, Thomas Earle Stribling, Jr., John Willys Sullivan, Charles Allen Turner, Thomas Dargan Woods, Jr.

Weaving and Designing: Hunter Septimus Ackis, Jack Charles, Beuron Autrell Fletcher, Woodrow Fenlon Sanders.

Cotton-Textile Institute Drive

The Cotton-Textile Institute is now in the midst of an aggressive campaign, getting subscriptions from the industry in support of its cotton promotion program. Dr. Claudius T. Murchison, president of the Institute, points out that, as last year, the subscriptions involve 2 cents per bale on the consumption of the mill.

Discussing the co-ordination and joining of the several programs of the Institute and the National Cotton Council, Dr. Murchison says in a letter to the mills:

"Simultaneously and in co-operation with the Institute, the National Cotton Council is soliciting subscriptions of 5 cents per bale from the sources which have supported it in the past; and, in addition, from mills using uncomressed or flat cotton. Your signature on the council's cotton spinner agreement (assuming you also subscribe to the Institute's program) oblige you to make no payment whatsoever to the council unless your flat cotton consumption exceeds 40 per cent of your total cotton consumption. You would be required to pay to the council 5 cents per bale only on the portion of flat cotton consumed in excess of 40 per cent of your total cotton consumption."

"For example: A mill using 20,000 bales would pay the Cotton-Textile Institute at the rate of 2 cents a bale, \$400. If this consumption were divided 12,000 bales compressed and 8,000 bales flat, the amount due the National Cotton Council at 5 cents a bale on 8,000 bales of flat cotton (\$400) would be cancelled entirely by this payment to the Cotton-Textile Institute.

"The future holds no greater hope for the cotton industry of America than increased domestic consumption; the industry's intensive promotion program is helping to increase consumption at home; your support for this great effort can help us to carry on one of the most progressive and far-reaching undertakings in our history."

OBITUARY

CHARLES L. CRENSHAW

Greenville, S. C.—Charles Legon Crenshaw, 53, master mechanic of Dunean Mill, died recently at his home. He was ill only one day.

Born and reared at Piedmont, Mr. Crenshaw was a son of the late Oscar and Elizabeth Shantian Crenshaw. Since 1925 he had made his home at Dunean, where he was well known and prominently connected with community activities. He organized and was a member of Crenshaw's String Band, having furnished music for entertainments throughout the Piedmont section.

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

When Rascals Fall Out

There is an old saying that "when thieves fall out, honest men get their dues," and if we substitute "rascal" for "thieves" we can look with optimism upon the situation which developed when Germany attacked Russia.

If Russia can put up enough of a defense to weaken Germany, Great Britain may find itself in a much more favorable position.

Ever since the present war began, Russia has been playing a waiting game, that is, has been waiting for the time when the struggle between Great Britain and Germany had so weakened them that Russia could attack both and establish communism in Europe.

While waiting, Russia secured the consent of Germany to jump on Finland, Poland and Rumania and annex portions of those smaller countries to the Soviet empire.

Only recently Molotoff was being entertained in Berlin and was supposed to be planning further aid to Germany in its fight against Great Britain.

Suddenly, and in violation of the non-aggression pacts which he had signed with Russia, Hitler decided to take from that country the portions of Finland, Poland and Rumania which he had permitted them to acquire and to also at-

tempt to take by force the great wheat fields of the Ukraine.

Now Germany and Russia are locked in a desperate conflict and the democracies of the world watch the battle between Nazism and Communism, fully realizing that their future depends to a very large extent upon the outcome.

The record of Germany in its attack upon religion and its persecution of the Jews has been recited too often to require repeating here but, as bad as it is, it is not nearly as bad as that of Soviet Russia.

No better picture of Russia has ever been painted, than that by Robt. Ripley ("Believe It or Not" author) after a visit to that country about 1935.

Robt. Ripley said in part:

"In 1917 the Communists seized the wealth of Russia. They 'liquidated' capitalism, and destroyed the educated classes. They murdered the rich—stole their wealth—seized all the gold, silver and precious stones—and confiscated all private property of every description. They took five hundred million dollars in gold from the national treasury (the largest stock of gold in the world at that time). They grabbed another fifty million in gold from Rumania. They confiscated eight hundred millions in American property.

"They destroyed all religion and looted the churches, taking all the gold, tapestries, priceless paintings and precious stones valued at twenty billions of dollars—all in all a grand total of forty billions of dollars was confiscated from the people.

"Then, after appropriating all the conceivable wealth in Russia in this gigantic scheme of 'sharing-the-wealth,' believe it or not there is not a single working man in the Soviet Union today who owns an automobile—or his own home—or has five thousand rubles in the bank."

"In a single year—1932—four million peasants died of starvation in the Ukraine and North Caucasus—the most fertile part of all Russia. The Ukraine was called 'the granary of the world' in the time of the Czars and produced enough grain to feed the whole country and exported hundreds of millions of bushels each year besides.

"Starvation in Russia is not due to crop failures—it is a man-made famine. The Soviet Government deliberately caused this ghastly chaos by robbing the farmers of their grain in order to sell it in foreign countries and acquire foreign currency.

Our readers know that no other journal has offered so much criticism of communism and of Soviet Russia and we do not hesitate to say that, if there were no other alternative than to live either under Nazism or Communism, we would choose Nazism, but we do believe that there is another alternative and that, although the way may be hard and we may have to pay a heavy price in money, and probably in blood, we will be able to retain our democratic form of government.

In the days of Christ there were experiments in communism, by groups of people, and in the years which have passed since then there have been hundreds of colonies or communities form-

ed upon the communist plan but all have failed because men who did a full day's work, or the full task assigned to them, were not content to continue to divide the fruit of their labor with those who seldom did a full day's work or a full task.

Communism has been fostered in the United States largely by college professors, many of whom are weaklings and could not succeed, if placed in any other calling than teaching. These professors ignore the 100 per cent record of failures of efforts to establish communism and dream of a form of government which will permit them to live a life of ease but to share equally in world's goods with men who by energy and natural ability have acquired wealth.

Lenine and Trotsky launched Russia under a communist form of government but it was found impractical and Russia is today, under the heel of Stalin, a cruel dictatorship and its form of government is almost the same as that of Germany.

Should Russia defeat Germany, which is very improbable, and establish communism in Europe and even in the United States, it would last only a short time. It would fail, just as every similar experiment in communism, since the days of Christ, has failed.

On the other hand, should Germany defeat Russia and then succeed in conquering the British Isles, it would continue its efforts to conquer the entire world and we would be faced to support a great army, a great navy and a great air force as a protection against their aggressions.

As much as we dislike Soviet Russia and communism, we must now take our place beside them in their war with Hitler and naziism and hope that, even though they lose the struggle, as now seems probable, they will cause Hitler to spend so much in man power and war materials that he will not be able to attempt the invasion of England until our defense production has reached a large scale and much of the material has been landed where it can be used against the invaders.

When you see two bitter enemies locked in a death struggle, against each other, it is common sense to aid the one whom you think will be the least effective when he turns upon you.

Russia is the worse morally and from every other standpoint, but we would prefer to fight Russia rather than Germany, and therefore we now take our stand upon the side of Stalin.

We are confident that Germany will in the end be defeated, by Great Britain, but the task will be much easier if she is badly crippled during her struggle with Russia.

There are many who believe that when he attacked Russia, Hitler made his greatest mistake and that he will never fully recover from same.

Price Fixing

The Government has advanced the minimum wage, for cotton mill employees, 5 cents per hour, cotton has advanced about 4 cents per pound and bills now being considered by Congress indicate that taxes will be materially increased.

In the face of these advances, Leon Henderson, price administrator, and his assistants proceed to fix prices for cotton goods at figures considerably below those which were prevailing.

When the price administrator considered price fixing, he naturally wished to begin with the industry which appeared to have the least ability to defend itself, which was the cotton textile industry of the South.

The fact, that most of the mills were located in the South, was about all that he need to observe but he was probably also aware that the cotton mills had been so maligned by upholders and special writers, that the public would not be inclined to extend sympathy, no matter what action was taken against them.

One editor has asked how Mr. Henderson or anyone else expects to be able to set aside all natural laws and to be able to set or fix prices without gradually taking over control of everything.

The answer is that nothing would suit Leon Henderson and his New Deal associates better than to take over full control of everything and everybody. It has not been the American way in the past but to many New Dealers it is the American way of the future.

The price fixed for print cloths will not seriously affect the low cost mills but to many mills it means that time and a half for overtime can no longer be paid and that overtime operation and the extra consumption of cotton must cease.

As all cotton goods now being produced are going into consumption, it means that less goods will be available and less cotton consumed.

The reduced consumption of cotton will mean that more loans on cotton must be financed by the Government.

Price fixing is not legal now but should a contest be made, the necessary law would be enacted by Congress or President Roosevelt would issue a decree under the national emergency.

It means that the Government will find it more difficult to secure some of the fabrics which it needs.

May Consumption of Cotton 918,902 Bales—Stocks Gain

Washington, D. C.—Cotton consumption continues on the upgrade, according to preliminary statistics made public by the Census Bureau, Department of Commerce, showing that 918,902 bales were consumed in May compared with 641,636 bales in the same month last year.

Consumption for the 10 months ended May 31st totaled 7,914,140 bales compared with 6,995,635 bales in the same period a year ago. Cotton on hand May 31st in consuming establishments amounted to 1,927,939 bales, compared with 1,314,792 bales in the same period last year, and in public storage and at compresses for the two periods there was a total of 11,358,417 bales and 10,091,517 bales, respectively.

Of total consumption during May, 785,913 bales were used in the cotton-growing States; 104,170 in New England States, and 28,819 bales in all other States. Linters consumed during May totaled 129,471 bales, compared with 92,193 bales in the same month last year. Exports during May dwindled from 226,469 bales in 1940 to 71,539 bales in May this year.

Cotton Spindle Operations Show Increase for May

Washington.—According to preliminary figures issued by the Census Bureau, 24,353,138 cotton spinning spindles were in place in the United States on May 31st, of which 22,980,286 were operated at some time during the month, compared with 22,787,396 for April, 22,795,742 for March, 22,769,368 for February, 22,820,724 for January, 22,817,658 for December, and 22,213,378 for May, 1940.

The aggregate number of active spindle hours reported for the month was 10,286,738,218. Based on activity of 80 hours per week, the cotton spindles in the United States were operated during May, 1941, at 121.8 per cent capacity. This percentage compares on the same basis with 119.6 for April, 116.7 for March, 114.0 for February, 112.1 for January, 105.0 for December, and 89.4 for May, 1940. The average number of active spindle hours per spindle in place for the month was 422.

Carolina Brush Company Expands

Charlotte, N. C.—The Carolina Brush Co., 414 Arlington Ave., is expanding its facilities to the extent of 1,500 additional square feet of floor space, making the total about 4,000 square feet.

This company, manufacturers of textile brushes, was organized in 1919 by James D. Smith, father of the present operator, J. S. Smith, who took over the operation of the company in 1933. The company now employs about 25 skilled operators, and serves the textile industry from Texas to Virginia.

Ask Flexible Plan for Price Control

The cotton-textile industry is entirely willing to cooperate with the Office of Price Administration and Civilian Supply in any equitable method of controlling cotton-textile prices, according to a statement made June 26th

by W. Ray Bell, president of the Association of Cotton Textile Merchants of New York.

"The first consideration of the cotton-textile industry," said Mr. Bell, "is to do all within its power to expedite the National Defense Program. The industry's tremendous increase of production is striking evidence of this. We don't want inflation, and don't want to have our industry contribute to the causes of inflation in any way. Furthermore, we are anxious to bring back to our markets the stability which has been disturbed by recent unauthorized reports."

Mr. Bell stated that recent reports of possible retroactive provisions in the rumored price ceiling would work injustice throughout the industry and create grave instability. One consequence of such provisions, he said, would be to put high cost mills out of production, which would in his opinion prove detrimental to national defense.

"The cotton-textile industry has always stood for the sanctity of contracts," Mr. Bell said. "We have gone further than many other industries in the promulgation and general acceptance of rules of fair practice as between buyer and seller; and to force a breach of contract price provisions made in good faith, which would be the result of retroactive ceiling prices, would undermine the basis on which our business operates. We cannot believe that OPACS will take any steps which will affect the validity of contracts.

"We also feel that an equitable price ceiling for cotton textiles must provide for fluctuations in the two major elements of the cost of producing cotton goods—raw materials and labor. Cotton, for example, now selling around 15c a pound, is up more than 4c since March. Allowing for wastage, that is an increase of close to 50 per cent in this important element in the cost of production in three months' time. Labor rates have also been increased materially in the last year.

"It seems evident that any equitable method of putting a top limit on cotton goods prices must provide some flexible relationship with the prices the mills must pay for raw materials and labor."

Textile Patents To Carolinians

Patents recently issued to Carolinians by the United States patent office relate mostly to knitting and textiles, according to Eaton & Brown, patent attorneys here.

W. A. Kennedy, of Charlotte, was awarded a patent on a triple pick counter which has two regulation counters and a third counter which can be secured on top of the other two counters. The top of the third counter has a shaft releasably engaging the main drive shaft for the other two counters, and means are provided whereby when any of the counters are thrown into operation, the other two counters are automatically disconnected.

H. G. Dickens, of Thomasville, was awarded two patents on wrap stripe attachments for knitting machines, wherein there is a horizontally disposed shaft which throws wrap yarns in front of the needles as they rotate. The patents also cover a peculiar retractile wire for control of plating and also cover the combination of a horizontal axis wrap means and a clamp and cutter whereby the wrap yarns are delivered in a straight line to the fabric beneath the clamp and cutter.

MASTER MECHANICS' SECTION

Ball Bearing Mounting and

Maintenance Practice

FROM a recently issued New Departure Ball Bearing Shop Manual, published by the New Departure Division of General Motors Corp., we quote the following very pertinent information concerning the handling, mounting, cleaning, storing, etc., of modern ball bearings.

BEARING NUMBERING

Most bearing manufacturers utilize numbering systems which make it possible to identify the principal bearing characteristics, such as type, series and bore size. While these systems are not the same for all makes, the general method used is much alike for most.

The majority of manufacturers designate light, medium and heavy series bearings as 200, 300 and 400 series. Thus, double row angular contact bearings, which are given the type number 5,000 by the principal makers, are marked 5200, 5300 or 5400 according to the series. A double row, light series, 12 bore bearing would, therefore, be numbered 5212, or a medium series, 5312.

LOCATION OF BEARING NUMBER

Most bearings, such as single row radial, single row angular contact and double row types have the bearing number stamped on the face of the inner ring.

With sealed bearings and any types fitted with shields the bearing number is usually stamped on the shield or seal.

INTERCHANGEABILITY

The principal types of ball bearings have been standardized internationally with respect to external dimensions that affect interchangeability. Thus, in bearings of reputable manufacture, regardless of the country of origin, the bores, widths, outside diameters and corner radii are held to specified standard metric dimensions and bearings of different make, but of like type and size are interchangeable.

BEARING BORE SIZES

Each standard type of bearing is made in a range of bore sizes numbered from 0 upward to correspond with the standardized metric bore diameters. For instance, a No. 0 bore bearing of *any type* always has a bore dia-

meter of 10 millimeters; a No. 1 bore, 12 millimeters; a No. 2 bore, 15 millimeters, etc., up to No. 22 bore which has a diameter of 110 millimeters. Beyond this size only single row bearings are at present made to international standards.

In the following table the range of bore sizes from 0 to 22 are given with the corresponding metric dimensions and their inch equivalents:

BEARING BORE SIZES IN INCHES AND MILLIMETERS

Bore Number	Bore Diameter Millimeters	Bore Diameter in Inches
0	10	.3937
1	12	.4724
2	15	.5906
3	17	.6693
4	20	.7874
5	25	.9843
6	30	1.1811
7	35	1.3780
8	40	1.5748
9	45	1.7717
10	50	1.9685
11	55	2.1654
12	60	2.3622
13	65	2.5591
14	70	2.7559
15	75	2.9528
16	80	3.1496
17	85	3.3465
18	90	3.5433
19	95	3.7402
20	100	3.9370
21	105	4.1339
22	110	4.3307

Note this: that above 3 bore, the bore diameters increase by steps of five millimeters. The diameter in millimeters from that point on always equals the bore number multiplied by five. Thus, an 8 bore bearing has a bore diameter of $8 \times 5 = 40$ millimeters, or a 17 bore bearing a diameter of $17 \times 5 = 85$ millimeters. On the other hand, having the bore diameter in millimeters, the bearing bore number is found by dividing by five, viz., $50 \text{ m.m.} \div 5 =$ a 10 bore bearing.

SEALED BEARINGS

Ball bearings with built-in seals as produced by different manufacturers do not in most cases conform to any standard which would make them interchangeable. This is particularly true of width dimensions. Therefore, when drawing self-sealed bearings from the stock room, it is advisable to check to make sure that the *make and type* are correct for the parts in which they are to be assembled.

CLEAN, DRY STORAGE

Ball bearings should be kept in stock in a location where they will not be subjected to extremes of heat or moisture and reasonable steps taken in regard to cleanliness. In a stock room which at certain seasons may be excessively humid or damp, the possibility of damage by rusting is greatly increased. When kept in too warm a place, the lubricant with which the bearings are coated tends to become more fluid and may work away from some surfaces, thus leaving them less well protected against rust during periods of dampness.

KEEP BOXES SEALED

When bearings are received, the individual boxes in which they are sealed should not be opened. Keep the bearings on the stock shelves with box seals unbroken.

Always arrange new bearings on the shelves so that the older stock will be used first.

Bearing boxes should be placed with the end on which the bearing number is stamped, toward the outside where it is easily read by the stock clerk.

If bearings are received by the stock clerk in boxes which have been opened, or which are torn and show evidences of rough handling, the bearings should be examined to see whether or not dirt has been forced into them. If such appears to be the case, it is safer to have the bearings cleaned and relubricated according to the directions following before placing them in stock. In the meantime, *before* such bearings are cleaned, *do not spin* them. This would simply distribute any dirt more thoroughly into the bearings and if abrasive enough might cause scratching of the balls or raceways.

Never use excelsior or similar material in packing bearings. Particles are almost certain to get into them.

CLEANING BEARINGS

Provide a perfectly clean bench or table to place bearings on both before and after cleaning. Remember, that when abrasive dirt once gets into the separator pockets and on the ball raceways, it is not easy to remove. Therefore, be careful not to risk adding more dirt by laying bearings on a dirty bench either before or after cleaning.

Put bearings into a *clean* container of *clean* gasoline (free from lead or anti-knock compounds) or use kerosene, or if a non-inflammable material is preferred, carbon tetrachloride or similar solvent. Swish the bearings in the cleaner and finally revolve by hand while submerged to remove all grease or oil and dirt.

An air hose is sometimes an advantage in cleaning bearings, *but if used, the bearing rings must be kept from spinning* or else dirt is likely to cause scoring.

Caution: The air must be free from dirt or moisture.

RELUBRICATE AFTER CLEANING

After bearings have been cleaned, spin them in clean, new light oil until the solvent has been removed. Oil has a tendency to slip from surfaces wet with kerosene or similar solvents, leaving the surfaces unprotected and susceptible to corrosion.

Always relubricate *immediately* after they have been cleaned and washed. Such cleaners as carbon tetrachloride leave surfaces bone dry and open to rust.

RE-WRAP AFTER CLEANING

New bearings are wrapped in oiled paper or celophane to prevent the lubricant from escaping and leaving the bearings dry. Therefore, if bearings have been cleaned for the reasons just given, they should be coated *at once* with clean, high grade oil or petrolatum. Do this thoroughly and then wrap them in oiled paper or cellophane before placing them in boxes for the stock shelves. *If put into bearing boxes without such wrapping, the lubricant will eventually soak into the boxes and the bearings are likely to dry out and rust.*

BEARINGS AS GAUGES

The use of a bearing as a gauge is not recommended. First, if the bearing used is later to be put in service, it is certain to have more or less dirt in it from handling and laying it on the bench. Thus even with close push fit to be obtained on a stationary shaft, the bearing can be impaired by handling. Second, a bearing which is a press fit, must nearly always be pressed at least half its seat length on the shaft before the correctness of its fit becomes evident. That is, to be sure a slight cocking is not making the fit seem tighter than it actually is. To push and pull such a bearing on and off its seat before final assembly is a practice to be avoided wherever possible. The use of outer rings as housing bore gages is discouraged because of their relative flexibility.

CORNER FILLETS

The bore and outside diameter corner radii for ball bearings are standardized, but the radii given in bearing dimension tables are for the *maximum fillets which the bearing corners will clear*.

AVOID SHARP CORNERS

Where undercutting is to be done, the best rule for any type is to cut no deeper than will allow sufficient grinding clearance. Sharp corners should be avoided since they seriously weaken a shaft.

SPACERS, NUTS, GEARS, PULLEYS AND SLINGERS

All spacer faces must be parallel to within .0002" and flat when checked on a surface plate. When outer and inner preloading spacers are to be of the same length, their faces are to be ground in the same operation. Where nuts lock gear or pulley faces against the bearing it is important that such faces be checked for parallelism to prevent shaft distortion. Slinger clearances should be examined to be sure they do not rub against adjacent parts or excessive heat may result. The outer ring spacer must be an easy sliding fit in the housing bore, otherwise

it may cause distortion. For the same reason, the inner ring spacer should be a sliding fit on the spindle. Squareness of the nut face with its thread is of paramount importance. The nut should be mounted on a threaded arbor held between centers, and both sides dressed square with the axis. A greater degree of accuracy may be obtained by reversing the position of the nut on the arbor several times during this operation.

ALIGNMENT

One of the most important fundamentals of a ball bearing housing is the accuracy of its alignment with the true axis of the shaft.

Such alignment, of course, includes not only *parallelism* of the bearing seats, but *concentricity* as well.

BEARING SEATS

If a bearing is pressed on to a seat that has not been ground, no matter how finely the turning may have been done, the bearing inner ring is supported only by the tiny ridges left by the cutting tool. This means that contact at the bearing seat is reduced anywhere from 20 to 50 per cent and as the ridges become flattened, the bearing fit may become entirely too loose.

Hand work in finishing a bearing seat is not advisable, since the use of emery cloth or other means usually results in inaccuracy and taper.

Never allow a bearing seat to be peened in order to obtain a tight fit between bearing and seat. This throws the bearing ring out-of-round. Peen marks will eventually pound down and a loose fit will result.

SPINDLE SEATS AND THREADS

The diameters of spindle seats must be within specified limits. If the original center holes are still in the spindle, the latter should be mounted on bench centers and all surfaces indicated for radial eccentricity and face runout of shoulders. Permissible errors can only be determined by such factors as the desired accuracy of the final mounting and its speed. It is essential that locking and preloading threads be square with the spindle centerline, otherwise tightening of the nuts will cause distortion and runout. A spindle will usually distort during heat treatment. Obviously, threads turned on a spindle before heat treatment will not be square with bearing seats ground afterwards. If it is impractical to grind the threads, they should be left soft enough to be chased from the original grinding centers after heat treatment. If the spindle is hollow, the center plugs from which bearing seats have been ground should not be removed until all the threads, nuts and other related parts have been indicated for squareness.

CLEANLINESS FIRST

No matter how well or how accurate bearings may be made, their success in a machine can be definitely assured or made very doubtful according to the methods used in applying them. It is really important for every manufacturer, therefore, to see that the bearings he uses are handled and installed in a manner generally approved by bearing makers.

Again, the matter of first importance is, *keep the*

bearings clean, and this is to be watched at every step until they are finally enclosed in the housing.

Keep bearings in their boxes until ready to mount them. The best plan is not to break the box seals until just before the bearings are to be applied.

Do not wash or wipe out the protective lubricant put in by the bearing manufacturer.

Be sure the *assembly bench* as well as the *machine parts* on or in which the bearings are to be mounted are perfectly clean. Smooth, metal topped benches are usually easiest to keep clean and do not become imbedded with metal chips or abrasive dirt.

It is just as important also, to be sure that *mounting tools are kept clean* so that there is no dirt to be shaken off into the bearings.

It is easier to maintain this desirable cleanliness if assembly operations can be located in a place most free from dust or one that can be shut off from air currents likely to carry dust in from other departments.

For shafts, wipe bearing seats, corner fillets and shoulders clean and spread a very small amount of grease on the seat before mounting bearing. Too much grease can form a wave ahead of the bearing as it is pressed into place and prevent a perfectly solid contact against the shaft shoulder. The same, of course, is true of any dirt or chips if not wiped off.

For housings, the best plan after thorough cleansing and drying of castings is to coat the inside with a quick drying enamel that will resist heat and oil. Such a paint should have sufficient body to seal the casting pores and prevent core sand or other particles from loosening and working into the bearings.

Particular attention should be given to inaccessible cored oil pockets and the under sides of lugs, since these are most likely to be neglected and thereby become a source of dirt later on. Oil holes should be checked after painting to be sure they are open and clean.

Ball bearings should never be forced onto a shaft by pressure exerted on the *outer ring*, nor into a tight fitting housing by pressure on the *inner ring*. To do so is to risk serious damage, particularly to the ball raceways.

For shafts the best method is to use an arbor press and a piece of pipe or tubing whose inside diameter is slightly larger than the bore of the bearing. The pipe should be faced square at both ends and carefully cleaned inside and out to be sure no loose scale or dirt remains to be jarred into the bearings.

With the shaft and bearing lined up squarely as possible and the pipe sufficiently centered to clear any small shoulders or locknut threads, apply moderate pressure until the bearing is properly started, then press it firmly to a solid contact against the shaft shoulder.

AVOID EXCESSIVE FORCE

If the bearing seat is of the correct diameter and without serious taper, the bearing should go all the way to the shoulder smoothly and with uniform pressure. If it sticks and requires excessive force at any point, be sure that it is not cocked. *Continued force on a bearing not started square is likely to scrape and seriously damage the bearing seat.* If the bearing still resists, stop and check to find the source of trouble, which may be a burred or tapered seat.

If an arbor press is not available, or the shaft length is

such as to prevent its use, the bearings may be mounted by means of the pipe and a hammer. Clamp the shaft securely in a vise, between soft metal or hardwood blocks, to avoid damage to the shaft by the vise jaws.

The use of lead, babbitt, or wooden hammers is not recommended since flakes or chips from them are quite likely to break off and fall into the bearings.

The use of a hammer is not recommended for assembling or shielded type bearings, as a seal or shield has a tendency to loosen from the jar of the hammer blows.

SLEEVES, TUBING AND PLATES

These should be made of soft steel and left soft. Corners should be well rounded to avoid flaking. Cast iron, brass, copper, and other soft materials should not be used since flaking will take place and result in potential dirt hazard.

DRIFT PINS

Drift pins for locating and squaring up bearings are not usually recommended, but if necessary should be made of unhardened drill rod or cold rolled stock with edges well rounded. *Do not* use hardened drift pins since injury to ring surface may result. *Do not* use brass or copper drift pins since flaking may occur and dirty bearings may result.

Drift pins for bearing mounting should be used only for starting and squaring up bearings or in cases where only a few bearings of a given type are to be mounted. Tubing or sleeves with properly squared ends materially reduce the hazard of damage to bearings and surrounding parts, such as may result from use of drifts. They are also quicker and easier to use.

LARGE BORE BEARINGS

The most satisfactory installation method for large bore bearings has been to heat the bearings to a moderate temperature to expand the bore and then push them to a seat on the spindle, little force being required if the recommended dimensions have been carefully adhered to. Not much heating is required in order to produce a comparatively large expansion of the inner ring.

APPROVED HEATING METHODS

Heating bearings in an oil bath is not recommended. Temperatures are hard to control and keeping the oil clean is difficult. Much simpler methods are now used with good results.

By the first method a shelf is provided with a row of high powered electric lights and reflectors above and below it, the distance of the lights from the shelf determining the degree of heat obtained. The bearings, still sealed in their boxes are placed on the shelf until thoroughly warmed, usually to temperatures of approximately 150° F. They are then taken from the shelf, removed from the boxes and applied immediately.

By the third method used for ultra-precision installations, bearings are laid on an asbestos pad, and the inner rings only are heated with lamp bulbs. After heating for a predetermined period of time to obtain the desired amount of bearing bore expansion, the bearings are then dropped in place by hand. With this method, bearing handling is not hampered, due to the inner ring only being heated.

PROTECT UNFINISHED ASSEMBLIES

Whenever bearings have been mounted, but not enclosed, always cover them with clean cloth or paper to prevent the entrance of dust or dirt. This applies with particular force to partial assemblies which are to be left for several hours; overnight for instance. Abrasive dust carried in the air is not easy to see and very often enough may collect on a bearing in a comparatively short time to eventually cause wear.

BEARING REMOVAL

Never force a bearing from a shaft by pressure applied against the *outer ring* or from a tight fitting housing by pressure against the *inner ring*.

Where other parts on a shaft do not interfere, the bearings may be supported by either a solid or split ring, or two flat bars of equal size and the shaft pressed out. Where shaft proportions prevent this, a simple form of puller may be used. In many cases gears or other parts are mounted next to the bearings and very often the puller may be applied to these so that they in turn are utilized to force the bearings off by pressure on the inner ring.

If bearings are removed because of some trouble which is not fully determined, keep them in exactly the condition in which they were removed until they can be inspected by the bearing maker. Never wash the grease or oil from such bearings, but wrap them up to keep dirt from getting in.

S. T. A. Convention Pronounced Best Ever

(Continued from Page 22)

loyal and do everything we can to help our defense and each other."

At the conclusion of Mr. Lockman's talk Mr. E. A. Terrell, president of the Terrell Machine Co., of Charlotte, N. C., made a very interesting and instructive talk on the training of machinists and mechanics through an apprentice school. This address will be found on page 14. Following the address there were many questions asked by the audience, indicating much interest among the mill men.

Governor Burnett R. Maybank, of South Carolina, was the next speaker, with a very timely and interesting message on the National Defense situation. In describing the resources of the South, with particular emphasis on South Carolina, he predicted that more and more industry would move to the Carolinas and adjoining States. As reason for this prediction he cited the adaptability of Southern labor and management, which is almost entirely free of any foreign element, and the abundance of natural resources and power facilities.

Friday Afternoon Sports

Friday afternoon sports included the annual golf tournament, under the management of Hill Zahn, H. W. Butterworth & Sons Co., Charlotte, N. C.; bridge tournament, under the direction of Mrs. Fred Decker (Fred represents Textile Specialty Co.); set-back tournament, with George Snow, Atlanta (Ga.) Brush Co., in charge; and horse-shoe pitching, directed by Virgil E. McDowell.

Winners in the golf tournament were:

Active Members: Low gross, J. O. Lindsay (83), Pacific Mills, Lyman, S. C., handsome cup donated by Corn Products Refining Co.; second low gross, F. Gordon Cobb (84), silver; low net, M. Weldon Rogers (69), Chadwick-Hoskins Co., Charlotte, N. C., cup donated by Charlotte Textile Club; second low net, Newton G. Hardie (70), Gossett Mills, Anderson, S. C., silver.

Associate Members: Ed. Reid (78), Sonoco Products, Charlotte, N. C.; second low gross, Fred Sails (81), Atwood Machine Co., Charlotte, N. C., silver; low net, Jim Henderson (68), Parks-Cramer Co., Charlotte, N. C., cup donated by *TEXTILE BULLETIN*; second low net, F. E. Bozeman (69), Whitin Machine Works, Charlotte, N. C., silver; consolation, Tommy Nelson (128—Tommy says he used a croquet mallet), prize being a set of hand embroidered pillow slips.

In the horse-shoe tournament winners were Virgil E. McDowell, first prize; R. P. Bullock, second prize.

Bridge winners were: High score, Mrs. Brannon; consolation, Mrs. John McFalls; traveling prize, Mrs. R. T. Stutts. The prizes for this event were handsome sets of the recently introduced plastic bridge cards, guaranteed for at least 600 rubbers of bridge, donated by Ragan Ring Co., of Atlanta, Ga.

The ladies pulled a fast one on the men in the traditionally masculine set-back tournament; the winners were announced as Mrs. Fred Dickerson and Mrs. Jack Grier.



John Turner
Elected Chairman of the
Associate Members' Division



Falls L. Thomason
Elected Vice-Chairman of the
Associate Members' Division

Annual Banquet

The annual banquet Friday evening, with President Lockman presiding, filled the banquet hall to capacity. Past presidents seated at the speaker's table and recognized by Board Chairman Stutts were Culver Batson, John A. McFalls, J. O. Corn, Gordon Cobb, P. B. Parks, Jr., and T. W. Mullen.

R. T. Stutts donated the gift to the retiring president, and P. B. Parks, Jr., presented the prizes to the various tournament winners.

Structive work was small in the South's textile mills, and game was started, with about forty valuable gifts going to the winners. In a special game open only to present and past officers of the association Mr. Lockman was the winner, giving him almost a clean sweep of prizes for which he was eligible. The special prize for this event

was an electric clock (which also tells the date and month). Both this and the barometer given to the retiring president were presented by the Ragan Ring Co.

The Bingo game was called by Secretary Royal, assisted by Luke Castile, M. W. Rogers, Fred Decker, T. C. Davis, Charlie Switzer, and Fred Phillips.

Saturday Morning Session

The first speaker on the Saturday morning session was Edward Scheidt, special agent in charge of the Federal Bureau of Investigation for North Carolina and Western South Carolina. Mr. Scheidt told of many instances where the F. B. I. had been called in to investigate sabotage or to install safeguards to prevent sabotage or espionage. He suggested that the likelihood of such destructive work was still in the South's textile mills, and that ordinary precautions and the application of common



J. O. Thomas, New President of the Southern Textile Association,
and T. C. Pegram, New Chairman of the Board.

sense measures should serve to prevent its occurrence.

Malcolm E. Campbell, senior cotton technologist, U. S. Department of Agriculture, followed Mr. Scheidt and told of a number of interesting tests that have been conducted by this department recently. Copy of this address will be found on page 11.

Concluding with the annual business session, at which time officers and board members were elected, the convention was officially over at noon Saturday.

The following firms or individuals contributed toward the entertainment and prizes furnished by the Associate Members' Division:

Abbott Machine Co., American Blower Co., American Viscose Co., Armstrong Cork Co., Arnold, Hoffman & Co., Ashworth Bros., Inc., Atlanta Brush Co., Atwood Machine Co., Baham Textile Machinery Co., Barber-Colman Co., Barkley Machine Works, Becco Sales Corp., Chas. Bond Co., A. B. Carter Co., Charlotte Leather Belting Co., Clinton Co., Cocker Machine & Foundry Co., Corn Products Refining Co., Cotton, Crompton & Knowles Loom Works, Dairy Ring Traveler Co., Draper Corp., Emmons Loom Harness Co., Foster Machine Co., John W. Fox, General Dyestuff Corp., General Electric Co., Greensboro Loom Reed Co., Greenville Belting Co., H. & B. American Machine Co., Harris Mfg. Co., Hart Products Co., E. F. Houghton & Co., Howard Bros. Mfg. Co., Industrial Supply Co., Keever Starch Co., Ralph E. Loper Co., Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Montgomery & Crawford, Inc., National Paper Co., National Ring Traveler Co., D. C. Newman, N. Y. & N. J. Lubricant Co., Frank G. North, Inc., Odell Mill Supply Co., Penick & Ford Sales Co., Ragan Ring Co., J. E. Rhoads & Sons, R. I. Warp Stop Equipment Co., Saco-Lowell Shops, Seydel-Woolley Co., Sonoco Products Co., Staley Sales Corp., Steel Heddle Mfg. Co., Stein, Hall & Co., Stodghill Co., Jos. Sykes Bros., Taylor-Colquitt Co., Terrell Machine Co., *TEXTILE BULLETIN*, The Textile Shop, Textile Mill Supply Co., *Textile World*, Universal Winding Co., Veeder-Root, Inc., WAK, Inc., Walker Mfg. Co., Whitin Machine Works.

POSITION WANTED—By practical card room overseer; 43 years old; strictly sober; active church worker. Now employed as assistant superintendent and overseer cards, but desires to make change for personal reasons. Address "GA-12," c/o Textile Bulletin.

WANTED—Competent, and strictly sober, cloth room overseer, for mill located in North Georgia, having 550 looms on fine sheetings and specialties. Give age, experience, and full references, in your first letter. Address "Box J-58," c/o Textile Bulletin.

WANTED—Position as master mechanic; 15 years' experience as same. Thoroughly familiar with steam or electric drive; machine shop work, repairing, upkeep, installation of mill machinery and power plant equipment. Address "M. M." c/o Textile Bulletin.

LARGE PRIZE-WINNING CHRYSANTHEMUMS, Silver Wedding White, Golden Glow Yellow, Hinson Lavender, Martha Marie Pink, Bronze, Cream, Variegated, 25 plants, \$1.35; 60, \$2.65. All colors, button and daisy type; 20 plants, \$1.00. Red Verbena, 45c doz.; Red Spider Lilies, 50c doz.; Blue Violet, 20c doz.; Chasta Daisies, 30c doz.; fine Yard Fern, 20c doz. Silver Floral Garden, Rt. 5, Cuthbert, Ga.

WANTED—Position as Jacquard Weaving Overseer, Taps, drapes, spreads, etc. Any make of looms or head. First-class loom fixer; 10 years' experience as overseer. Address "Jacquard Weaving," care Textile Bulletin.

Argentines Seek More U. S. Yarn, Dyes, Machine Parts

Buenos Aires.—The Asociacion Textil Argentina has addressed a plea to the Argentine Government to include in the proposed trade treaty with the United States provisions for facilitating the import of American yarns, machine parts and dyestuffs.

The association is seeking to halt any increase in imports of American machines producing hosiery and knitted fabrics, and to restrict the imports of second-hand, rebuilt textile machines.

Huntsville Gets Query On Idle Knitting Mill

Huntsville, Ala.—The Chamber of Commerce here has received inquiries concerning the idle plants here of the Lowe Mills and Erwin Mfg. Co. a cotton cloth and knitting mill, respectively. The queries came from the Alabama State Chamber of Commerce and are causing some interest.

John M. Ward, secretary of the State Chamber, wrote that he has come in contact with a manufacturer who is seeking a location in Alabama, that he wants a suitable building with access to large quantities of water of low-grade hardness.

Recent reports were to the effect that the Lowe Mill is being sought by a manufacturer who would acquire it for the purpose of converting it into a woolen mill.

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Classified Department

Southern Standard Mill Supply Co.

NEW, REBUILT AND USED TEXTILE MACHINERY and SUPPLIES

512 W. Fourth Street
Charlotte, N. C.

Phone 3-8841

1064-90 Main St., Pawtucket, R. I.

SPECIALS—HURRY! HURRY!

190—40" Dobson & Barlow Cards

25—40" H. & B. Cards

100—Draper "E" Looms, 49 1/4" R. S., Lacey Tops

1—Cohoes Slasher, 5' and 7' Cylinders

5—5' Copper Slasher Cylinders

1—7' Copper Slasher Cylinder

1—C&M 48" Inspecting Machine—Glass Top

1—W&J Mercerizing Frame, 50'x50", Top and Bottom Row
Open Clips—Complete

1—48" Ceiling Plaster

Bobbins—Spools—Supplies



BAY STATE TEXTILE CO.

220 HARTWELL STREET • FALL RIVER, MASS.

PERFEX FIBRE BROOMS

are constantly improved. That's why Batson serves many of the large progressive and exacting mills.

Start now with any size order.

BATSON
Box 841 Greenville, S. C.

SHEET METAL—ROOFING

Skylights, Guttering and Conductors
Conveyor Pipe and Separators
Approved Barrett Built-Up Roofers

DAUGHTRY SHEET METAL CO.
1109 E. Trade St. Charlotte, N. C.
Phone 2-2195

WANTED

Card Grinders. Must be thoroughly experienced and capable of getting out good quality work and maximum production. Good pay for the right man.

Address "Box S-9,"
c/o Textile Bulletin.

WANTED

Card Room Seconds Hands. Must be thoroughly familiar with all card room processes, know how to handle help and get production. Excellent pay for the right man.

Address "Second Hand,"
c/o Textile Bulletin.

EATON & BROWN

Patent Attorneys
1206 Johnston Bldg.
Charlotte, N. C.
514 Munsey Bldg.
Washington, D. C.
Paul B. Eaton
Former Member Examining Corps
U. S. Patent Office

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Operatives furnished for all ethical legitimate cases to firms, attorneys and individuals. Male and female operatives. Dictograph, Tel-tap, and Camera services. References, any Lynchburg Bank or City Official. Phone or write Cundiff's Detectives, Inc., Lynchburg, Va. No branch offices and no solicitors.

TIME STUDY MAN

Experienced in point system and piece work wage incentive installations in cotton and woolen spinning, weaving and finishing departments. Applicants should furnish details of their experience, age, recent photograph, names of past and present employers who will not be contacted without applicant's permission. State salary desired. Location—middle South. Selection to be made at early date.

Address "Time Study Man,"
c/o Textile Bulletin.

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For These Lines of Textile Specialties

"HERON" and SUPER-SUPERIOR CHECK STRAPS

G B C SHEEPSKIN

NEUMANN CALFSKINS

NOONE'S ROLLER, SLASHER, AND CLEARER CLOTHES

G B C SPECIAL ROLLER CLOTHES

G B C BELT CEMENT—HOLT'S ROLLER GLUE

WILSON'S CANVAS LUG STRAPS

DAYTON BLUE LABEL LOOM SUPPLIES

DAYTON V-BELTS AND PULLEYS



GREENVILLE BELTING COMPANY

Phone 2218 (Day) 3916 (Nite)

WANTED

Mechanic with some electrical and steam experience for Textile Plant in Eastern North Carolina. State qualifications in writing, also salary expected.

Apply "Box A-17,"
c/o Textile Bulletin.

WANTED—FLAT CARDS

12 Saco-Lowell or Saco-Pettee 40" revolving flat cards. Please specify year, hand and whether with or without clothing.

Address "Box NB-49,"
c/o Textile Bulletin.

Practical Textile Inventions Wanted

We are in market for patented practical inventions to be bought outright or marketed on royalty basis. Do not answer unless patented or patent applied for.

Precision Gear & Machine Co.
Box 1153 Charlotte, N. C.

SUPERINTENDENT AVAILABLE

Thoroughly capable and experienced superintendent available about August 1st. Either yarn or weave mill. A-1 references. Address "Superintendent," c/o Textile Bulletin.

WANTED—Position as overseer of cloth or finishing room. Have had five years' experience as overseer of cloth room and ten years as wet finisher. Employed at present as overseer but desire a change. Excellent references from present employer. Address "Box A-2," care Textile Bulletin.

POSITION WANTED as Overseer or Shift Foreman in Twisting and Winding. Can furnish good references; am 38 years old; sober; member of church. Familiar with all types Twisting, Spooling, Winding, Warping, and Card Weaving. Address "J. C. D." c/o Textile Bulletin.

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Atlanta

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Oils—Soaps—Finishes—Bleach

"Spunranol" and "A. N. L. Penetrant"

Phone 2182

**The Size Penetrants for Spun Rayon and Acetate
THAT WORK**

High Point, — — — North Carolina

Cotton Goods Markets

New York.—Trading in cotton gray goods is practically at a standstill awaiting further developments in the vicinity of the OPACS. Various rumors are circulating concerning action by Leon Henderson but none of them are official. However, indications are that some action may be expected at an early date.

Some selling houses have withdrawn all goods from sale. Others confine their sales to spot deliveries alone, and a few have very late months this year to offer to persistent buyers. Buyers and sellers are mainly interested in passing through the present period of marketing uncertainty. The watchfulness applied to expectancy on the part of many that before many days have passed the question of government price fixing will have become answered. Others considered the price fixing reports of recent weeks as trial balloons from which nothing would result while the general market remained in its present relative quiescent state.

There have been mills whose ability to make spot deliveries is contrary to what they could do until now. Quantities available on the spot from mills previously oversold were not large and it is taken for granted that an occasional mill has accumulated a supply of spot yardage on which hopes had hinged that in due course it would command the premiums that attach to scarce constructions wanted in a hurry. Such reserve stocks were making an appearance. While it was an appreciated bit of luck to get quickly what was not expected for up to several months, there were also complaints regarding too hurried deliveries. In but a few cases, as reported, buyers had felt forced to order more than they needed ordinarily to assure themselves of supplies later on. Seeing the goods come in without advance notice of deliveries was the result of sellers having willingly applied on contracts for late months "sooner if possible." Mills, here and there, are taking advantage of such a clause.

Cotton finishing plants are less active than they were a month or more ago. Their reserves of work have diminished, but nothing to be compared to the slow-downs of past years is remarked, for when some describe themselves as doing less than before they note that high pressure productivity has given way to a more comfortable tempo in operations.

Much of the bother that confronts converters derives from their inability to obtain all the gray goods needed or wanted to put into work.

J. P. STEVENS & CO., Inc.

Selling Agents

40-46 Leonard St., New York

Cotton Yarn Markets

Philadelphia.—The OPACS order amending the ceiling prices for combed yarns, both single and two-ply, in the counts up to and including 20s, and exempting export yarns from compliance with the ceiling list, was received by distributors and spinners' agents with mixed feelings. They were pleased by the adjustment of the differentials for the coarse counts, but they were disappointed because OPACS did not raise the basis (42 cents for 30s/1) so as to compensate for alleged increase in cotton cost since May 23rd, the date of issuance of the original ceiling list, and also for such wage increases as may have been made by the yarn mills since May 23rd, or may be in prospect under the latest order of the Fair Labor Standards Act. As to the latter, it is conceded that probably few of the combed yarn mills will be greatly affected by the order raising the minimum wage rate. Following a conference in Washington June 11th between Chief Henderson, of OPACS, and a committee of spinners, the sales yarn trade got the impression that OPACS intended raising the basis for combed yarns to 44 or 45 cents for 30s/1. It is now expected that the spinners immediately will renew their representations to OPACS in this respect. It is regarded as unlikely that either carded or combed yarns will be freely offered in the markets unless and until the spinners are granted this measure of relief.

The combed yarn mills continue shipping out single and two-ply counts at the weekly rate of approximately 3 million pounds, but in the last six weeks their total sales, partly estimated, seem to have been equivalent to only one week's shipments.

Unfilled orders for combed sale yarns have been drawn down very materially since the middle of May, but, in general, they are believed to be still sufficient to sustain present running time until after Labor Day. This confirms the contention of some spinners' agents that their sources are well supplied with orders.

The substantial overbidding for the 3 million summer sleeveless cotton undershirts for the Army recently is interpreted here as indicating that civilian interest in this item has considerably diminished.

The low prices offered the Government on this underwear is attributed to the knitters mostly having possession of, or access to, sufficient yarn at prices far below those quoted now or within the last several weeks.

J. W. VALENTINE & CO., Inc.

Selling Agents

40 Worth St. New York City

Southern Representative

T. HOLT HAYWOOD

612 S. Main St. Winston-Salem, N. C.

Profits from Looms

Depend on Clean Cloth

Continuous output of clean cloth free of oil spots is impossible where oil is used for lubrication. Oil always drips and spatters, so that in addition to damaging goods two drops out of three are wasted.

7 out of 10 mills guard against these losses by using—NON-FLUID OIL. Besides saving its own cost many times over in oil spot prevention, NON-FLUID OIL cuts lubricant and application cost.

Write today for free testing sample
and bulletin, "Lubrication of
Textile Machinery"

New York & New Jersey Lubricant Co.

Main Office: 292 Madison Ave., New York, N. Y.

Falls L. Thomason, Charlotte, N. C.
Southern Agent

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Atlanta, Ga.	Detroit, Mich.



MODERN TEXTILE LUBRICANT

Better Lubrication at Less Cost per Month

Georgia Mill Men Agree To Voluntary Power Cut At Sea Island Meeting

(Continued from Page 19)

public relations committee. He reported that more than 175,000 children in 535 schools throughout the State had participated in the contest.

The activities of the Traffic Department were set out in the report of W. N. Banks, chairman of the Traffic Committee, who was unable to attend the convention because of the marriage of his son. His report was read by C. T. Kilmore, traffic manager of the association, who also made his own report.

George E. Glenn, Jr., of Pepperell Mills, Lindale, Ga., told of the activities of the Textile Operative Executives of Georgia, of which he is general chairman.

The Cotton Buyers Division has been concentrating on the matter of better ginning in Georgia, according to A. B. Edge, of Callaway Mills, chairman of that division. He also reported that the one-variety cotton communities are growing rapidly, there now being 152 such organized communities in the State.

A resolution supporting all defense measures, and urging President Roosevelt to use all his powers to prevent labor delays to the defense program, was reported from the Resolutions Committee by George P. Swift, and unanimously adopted.

New Type Clearer Board

The W. D. Dodenhoff Co., of Greenville, S. C., has recently introduced a new type patented clearer board for use in long-draft Whitin spinning, which incorporates a revolutionary change in design. The unusual V-shaped blocks covered with clearer cloth are the basis of the patent on this new development. Besides performing its usual job of removing excess fly and clearer waste as the roving passes through the rollers, the company states



that exhaustive tests have shown this board to be instrumental in a marked reduction of breakouts, work stoppages and waste. Tests also resulted in an appreciable increase in breaking strength and uniformity of yarn.

Further information may be obtained by writing to the Master Clearer Division, W. D. Dodenhoff Co., Greenville, S. C.

Pilot Plant Established By American Viscose Corp.

A new experimental unit for production of rayon staple fiber has just been put in operation by American Viscose Corp., in connection with its plant at Nitro, W. Va. It provides facilities for studying all phases of fiber production, from the preparation of the viscose solution to the packaging of the finished product, without interfering with normal production.

The new pilot plant, plans for which were originally

formulated a year ago, differs from regular fiber plants mainly in its capacity. Operated at full capacity, it could produce about 2 million pounds of staple fiber per year. Of course, no such production is anticipated since the plant will be operated in short runs for test purposes. All mechanical equipment is of the latest type and incorporated into much of it are fundamental designs which are expected to lead toward future developments in the industry.

Housed in its own building, the pilot plant is completely separate and independent from regular plant activities. In its design, great stress was laid on its adaptability. Virtually every part of the process may be altered at will to test production under all conceivable conditions. Thus, it is possible to study the effect of varying one condition while all others are held constant.

The company's purposes in establishing the new pilot plant are stated as follows:

1. To provide facilities for trying out improvement in production technique on a practical scale before adopting them on a regular production basis.

2. To develop new types of rayon staple fiber required for new purposes, and to improve present fiber types.

3. To produce sample quantities of staple fiber in odd deniers and staple lengths for development work by spinners.

American Viscose Corp.'s new pilot plant is an integral part of its research and development program. It serves as an important intermediary step between the company's research laboratories and the Textile Unit; both located at Marcus Hook, Pa. Developments which appear to have merit in the laboratories will here be tried out on a practical scale, and the resulting fiber may then be spun into yarns and woven into fabrics at the Textile Unit, before the product goes into regular production.

Dixie Mercerizing Ads Win Awards

Judges awarded the advertising of the Dixie Mercerizing Co., Durene manufacturers, Chattanooga, Tenn., one first award and one third award in the annual competition of the National Advertising Agency Network convention held in Chicago, May 28th-June 1st.

Twenty-five agency members of the Network, who are located in key cities throughout the United States, submitted samples for the competition. The Purse Co., Chattanooga, agency for Dixie Mercerizing Co., submitted the Dixie samples.

Dixie's direct mail campaign won first award for its superiority of copy, layout, art and illustration, and result of the campaign.

The campaign was made up of eleven folders and broadsides mailed during 1940-41. Most of the pieces were in two or more colors and were characterized by their effective tie-in with business paper advertising and personal sales efforts.

Dixie business paper campaign won third award. It consisted of twelve advertisements used during 1940-41 to impress the knitting trade with the advantages of Durene yarn, both in running on the knitting machine and in the quality of the finished product.

Judges for the competition were Jack Rodger, vice-president and Western manager of the McGraw Hill Publishing Co., Eugene Zuber, National Outdoor Advertising

Bureau, "Pete Calloway, of Time Magazine, and Tony Neher, of Century Electric Co., St. Louis.

Quarter of Alabama Cotton Textiles Going Into Defense

Birmingham, Ala.—A quarter of Alabama's cotton textile mill production is being taken by defense orders and another "sizable portion" is going indirectly into defense contracts, Joe L. Lanier, chairman of the Alabama Cotton Manufacturers' Association, said in an address prepared for radio presentation. Mr. Lanier reported also the State's cotton textile mills now are employing more than 50,000 workers, an increase of about 15 per cent over last year.

Mr. Lanier asserted that "for the first time in the history of America, the consumption of cotton in this country is approaching a rate equal to the production of cotton."

Manhattan Rubber Wins Annual Advertising Award

The annual award of the National Advertising Agency Network for "The Best Advertising Campaign in Business Papers" was awarded to The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., of Passaic, N. J., at a recent convention of the network in Chicago.

One hundred and fifty-one campaigns from all over the United States were entered under this one classification, through the twenty-five member agencies. The campaign for The Manhattan Rubber Mfg. Division was entered by their agency, The Roland G. E. Ullman Organization of Philadelphia, and received the unanimous choice of the judges for the first award.

The Manhattan campaign—an unusually comprehensive one—ran in a total of 58 industrial and business magazines and featured the extensive and diversified lines of mechanical rubber goods, asbestos friction material, abrasive wheels, and bowling balls, made in Passaic. This was supplemented by direct mail, catalogs and other forms of advertising and sales promotion.

This is the second time in less than four years that The Manhattan Rubber Mfg. Division has won national advertising honors. In 1937 their campaign was ranked second in their field at the time of the N. O. A. A. Convention. The advertising is under the direction of James J. DeMario, advertising manager.

Nylon Educational Chart Is Issued

An educational chart showing the manufacture of nylon as well as some of its more important uses has been prepared by the Nylon Division of E. I. du Pont de Nemours & Co.

In 19 pictures starting at the plant at Belle, W. Va., the various steps are shown. Excellent photographs taken at the Seaford, Va., plant show the production of the nylon polymer, the actual spinning and the various steps in the preparation of the yarn. The knitting and pre-boarding of the hose is also pictured. Likewise there are photographs of men's hose, foundation garments, nylon sewing thread and nylon fishing lines.

ASHWORTH
PIONEERS IN
CARD CLOTHING

LET ONE OF OUR
PRACTICAL
CARD MEN HELP
SOLVE YOUR CARDING

If you have a carding problem you will find one of our service men easy to talk to, because, being a PRACTICAL CARD man, he "speaks your language."

Our service staff is also backed by a manufacturing experience which can be traced to the earliest days of the card clothing industry, by unequalled manufacturing facilities and by modern laboratory equipment.

Since we are PIONEERS in the card clothing industry, a carding problem that is new to you may be old to us. It will cost you nothing to find out.

ASHWORTH BROS., INC.
Woolen Div., AMERICAN CARD CLOTHING CO.

3 FACTORIES
Fall River, Worcester, Philadelphia

8 REPAIR SHOPS
Fall River, Philadelphia, Charlotte, Greenville,
Atlanta, Dallas

7 DISTRIBUTING POINTS
Fall River, Worcester, Philadelphia,
Charlotte, Greenville, Atlanta, Dallas

Southwestern Representative: Textile Supply Co., Dallas, Texas

★ PRODUCTS AND SERVICES: Card Clothing for Cotton, Wool, Worsted, Silk and Asbestos Cards and for All Types of Napping Machinery • Brusher Clothing and Card Clothing for Special Purposes • Lickerin Wire and Garnet Wire • Sole Distributors for Plett's Metallic Wire • Lickerins and Top Flats Re-clothed

The Finest Materials



From the Four Corners of the World

Produce Seyco Sizing

OTHER
PRODUCTS
Softeners
•
Shuttle Dressing
•
Penetrants
•
Alkalies

The finest materials obtainable are used in the production of Seyco Sizing. Vegetable wax from Japan and Mexico, Gum from Holland and Java, Oils and Chemicals from home and abroad, are scientifically compounded into the highest grade warp sizing produced. Seyco Sizing is packed in tight, rust-proof non-absorbing, steel drums, which can be stored indefinitely.

ASK FOR DEMONSTRATION

Our well equipped chemical staff, directed by Dr. Seydel, a renowned chemist (honored by American Chemical Society as councilor), will help you with your Sizing and Finishing problems.

"A company is known by the customers it keeps."



Seydel-Woolley & Co.

Textile Chemicals

748 Rice St., N. W.

ATLANTA, GA.



THE SHUTTLE PEOPLE

SHUTTLES — HEDDLE FRAMES — HEDDLES
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Slaughter Machinery Co. Organized in Charlotte

The Slaughter Machinery Co. is the name of a new company organized in Charlotte, N. C., May 1st. The owners are: G. G. Slaughter, Mrs. G. G. Slaughter, Edwin F. Slaughter, and J. Fred Slaughter.

Gibbons G. Slaughter, who heads the company, is widely known throughout the Southern textile industry, with which he has been identified for many years. Mr. Slaughter was one of the founders of the Southern Textile Exposition and takes an active part in textile association and civic work. He is a member of the Charlotte Rotary Club.

The new company represents in the South, the following manufacturers of textile equipment:

Steamaire Co., American Obenmaier Co., Atlas Electric Devices Co., Atkinson, Haserick & Co., Cidea Machine Co., and McBeth Daylighting Corp.

Continued Expansion of Cotton Realm Predicted

Predicting continued expansion in the use of cotton for some time to come, Charles K. Everett, director of merchandising of the Cotton-Textile Institute, sketched an optimistic future for the domestic consumption of the nation's first fiber when he spoke at the morning session of the American Home Economics Association convention, meeting in Chicago June 24th.

"There is every likelihood that a continued expansion of the use of cotton is in prospect," he said, even in the "face of the fact that domestic consumption of cotton is currently proceeding at a pace that will unquestionably establish a new high record this year."

Pointing out that during the first five months of the year, American mills had consumed cotton at the "staggering rate of more than 10,400,000 bales per year," and that only about 10 per cent of this is accounted for by national defense orders, the speaker indicated that greater public acceptance of cotton products accounts for the increase and this has stemmed directly from fundamental improvements in manufacturing and processing which the industry has effected recently.

The results of these improvements have given cotton a new usefulness and a broader application, and have placed it on a competitive basis in new fields where it affords consumers worthwhile saving over other fibers, Mr. Everett observed.

Touching on the record-breaking consumer response to National Cotton Week's observance last month, the speaker remarked that "to the cotton-textile industry the gratification over the extraordinary promotion and sales of cottons is not half so important as the satisfaction taken from the fact that cotton dresses, suits, curtains, draperies now have the consumer appeal to justify that promotion."

Mr. Everett referred to an "ever-growing disposition" on the part of consumers to insure a full measure of value in their purchases and pointed out that sanforizing, to eliminate shrinkage from cottons, wider use of vat dyes in conjunction with newly-devised commercial standards of color-fastness, permanent, starchless, water-repellent, anti-crease and wrinkle-resistant finishes, permanent glaz-

ing, and "a host of other improvements" have safeguarded the customer making cotton purchases.

The Institute's merchandising director summed up these new advantages as very real "reasons why" domestic cotton consumption is on the upgrade and remarked that "there are other considerations that substantiate the outlook" such as lack of shipping space to bring silk and woolens to our shores with the resulting replacement of at least some of these fibers with cotton. More cotton, for instance, will probably be used in silk hosiery, the speaker believes, as well as in staple cloths which used to be "all-wool."

Some Spinning Test Results of Interest To Cotton Manufacturers

(Continued from Page 13)

strength of about 65 pounds will mean good spinning and weaving for print cloth. Let us, therefore, see what this new cotton would do if spun into print cloth warp. Making allowances for staple length and yarn count, it is calculated that if the triple hybrid were 1-1/16 inches long, it would produce 30s carded warp breaking at 106 pounds.

Actually, the hybrid was 1-5/32 inches in staple. It produced 22s yarn with a skein strength of 166 pounds, which was 45 per cent stronger than the average figure which we have obtained for different commercial cottons of this length. In finer counts the yarns of the new hybrid were relatively even stronger.

The results of this test are cited here, not to leave the impression with practical mill men that their troubles are over, because several years will necessarily elapse before it can be determined whether this cotton will have commercial possibilities. Rather, this work is mentioned to show what *can* be done with cotton experimentally. These results are, however, highly important and encouraging, particularly since no less striking things have already been carried out in a practical and large-scale manner with corn and other agricultural products.

The Bureau of Plant Industry, the various State experiment stations, and the commercial cotton breeders of the country have thousands of selections and progenies in their cotton breeding blocks that possess a great variety of fiber properties and possible use values. Regardless of the outcome of this new development, it is believed that the present method of testing these samples is bound to give us better cotton in the future.

Practical Apprentice Training for Machinists

(Continued from Page 14)

to be a misfit. We replaced him with a satisfactory man and later employed a recent mechanical engineer graduate from State College as his assistant. This man will have charge of the new second shift.

Our second mistake was in trying to teach by lectures made by our engineers. We found the I. C. S. had exactly what we needed in its Machinist Apprentice Course which we promptly adopted. This course was later offered to employees of the main shop who wished to improve their skill and a course for woodworkers was offered to a selected group in our spool and bobbin plant.



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The company pays one-half the cost of the I. C. S. course, the employee the other half plus necessary supplies and equipment. Apprentices are required to buy a standard kit of tools and tool box. They are advised not to buy extra tools without consulting the foreman.

Small weekly deductions are made to cover payment for course and tools.

We start our apprentices at 30 cents an hour and increase them every six months according to progress made. Our contract calls for specific rates of increase but we have regarded those rates as a minimum and, in most cases, are paying more than the contract provides. Several boys have advanced so rapidly that we are paying them as much as we had agreed to pay at the end of two years training. But they are doing the work and we think they should receive the pay.

Upon recommendation of the I. C. S. field agent we placed a supervisor in charge of this work. He assists those who need help, sees that lessons are in proper form and mails them to the school for grading, enters grades on students record cards, keeps a record of hours spent by each apprentice on each kind of machine, takes charge of study periods at apprentice shop, and prepares monthly reports of record of each student. He also prods the delinquent.

We run both shops on 42-hour shifts, allowing 5 hours with pay for study periods in the apprentice shop with an agreement that the apprentices will devote a like amount of time as a minimum to home study. Three hours are devoted to I. C. S. subjects and two hours to practical shop methods.

We have not found it possible yet to provide study periods for the main shop or the bobbin plant, nor have we yet been able to provide a study room for either plant. These we hope to provide in the near future.

Apprentices are selected by an Apprentice Committee. Preference is given to boys from local or nearby areas, and to boys whose fathers have been mechanics. Farm boys are also carefully considered and usually have shown good progress. After a probationary period of three months the candidates are either dropped for lack of aptitude and attitude or are signed up for the full course.

In addition to the formal course of study a library is provided. This contains most of the latest books on mechanical subjects, shop practice, allied subjects, periodicals and catalogs.

And now we come to that crucial question, "Does it pay?" It is too early for us to produce actual figures but we think the apprentice shop is already on a self-supporting basis. We are doing a substantial amount of production work in it and are also producing many of the woodworking knives and boring tools required by our bobbin plant. Seven of our boys are capable of operating production machines and five of them are now being used in that capacity. These boys are capable of doing better work than many poorly trained machinists who have had years of experience, and they are improving every day.

The course includes Industrial Economics which gives the students an understanding of industrial organization,

its functions, and its obligations to society. We believe a knowledge of fundamental economics will help to promote and to maintain better relations between employer and employee.

Finally, we believe that industry must bridge the gap between a school system which does not teach its graduates how to make a living and years of college training which so many of our young people cannot afford. If it does this job, and does it well, it will have done much to soften the economic shock which will follow this war. The last war brought us the New Deal. This one will produce even worse if we fail to prepare for its aftermath.

S. C. Mill Men Discuss Carding, Spinning, Weaving

(Continued from Page 16)

exhaustively. It did not matter if the picker made a bad lap, it would go right through there. We found no matter what came off the picker it would still run, and we got interested in that. We took a Saco-Lowell card and took off the bottom plate, bored the trumpet out, and put a new trumpet in there. It put about 50 per cent more in the can, but most of our ends were down on the floor instead of going in the can. Then we put on these trumpets and are getting more even sliver. We ran the springs for nearly two years and took them off.

Mr. McNeill: One phase of this has not been discussed and may be of interest. We made a test on 24 cards with tension springs and got about 30 per cent more yardage in the can, and it looked good from that viewpoint. We have cork rolls on our drawing. We did find, or we thought, we were not getting quite as even draft on the drawing, to begin with. We opened the rolls slightly, and we did not get enough improvement to justify continuing the springs. We saw no appreciable difference in breaking weight or evenness in the yarn. Now, this phase of it has not been discussed but is important. We found by actual test that we were consuming $\frac{1}{8}$ h.p. more per card by the use of the spring, which would cost in one of my plants better than \$1,200 a year. That is quite an item. I was

brought up in the old school, that when and if your sliver became too soft and too light, put new trumpets in the coiler heads. I rather like that, to control the size of the sliver with the trumpet at the coiler head. It will in great measure control the thick places and lumps coming through. They will come down, and they should come down.

Mr. Simmons: That is something we have overlooked. Has anyone else anything to say on that?

Mr. DeBrule: The gentleman said he is one of the old school, and I am, too. What I learned I learned in the mill. Of course you can, with this spring tension, put more in the can. But I wonder how many men, when they put that spring on the card, took a trumpet gauge and found out what was wrong in the card? I will say that if you have your trumpet just exactly what it should be and your lap what it should be, rolling off at the back of the card, if you did put that spring on there you would not get a pound more in the can. I may be getting out on a limb, but I think that.

Mr. Simmons: You feel the whole thing comes down to the correct size of the trumpet.

Mr. DeBrule: That is right.

Mr. Lockman: Speaking of power consumption, if you make the diameter of the trumpet smaller, does that increase the power?

Mr. Simmons: Does anybody know about that?

Mr. DeBrule: Yes, sir, I would say it would, to a very small extent. If you have a large trumpet and are pulling the sliver through, if you have a $\frac{1}{4}$ " trumpet, for instance, and reduce it to $\frac{1}{8}$ ", naturally it would increase the pull on there.

Mr. DeBrule: With that smaller trumpet, coming down, say, from $\frac{1}{4}$ " to $\frac{1}{8}$ " (of course, you do not do that; that is merely an illustration), if you come down 50 per cent that would not be as much power consumption as if you put the spring on the calender roll. I think it would be less.

John S. Lockman, Overseer Spinning Dept., Monarch

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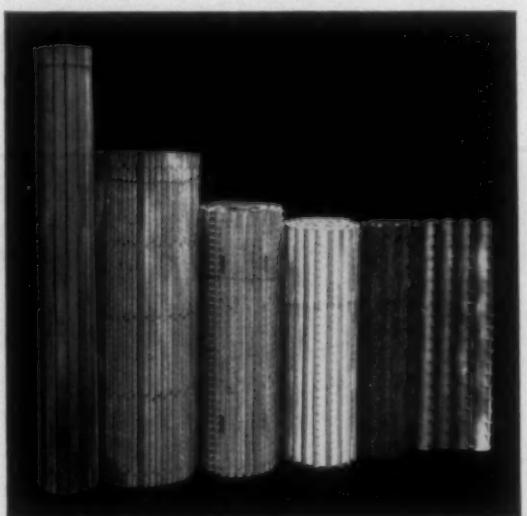
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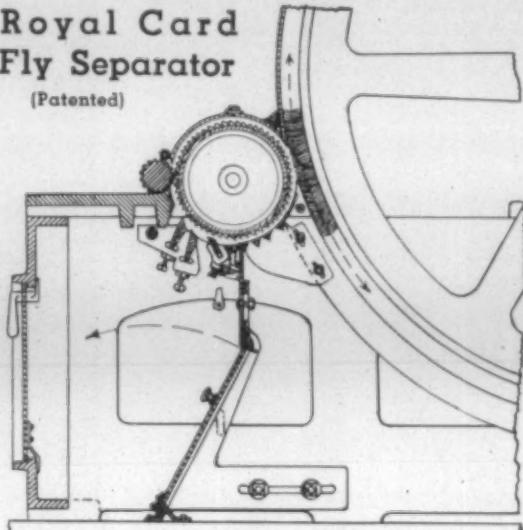
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Mills, Lockhart Plant, Lockhart: I should like to ask if the card was made right when it was made. When they made the card did they put the right size of hole in the trumpet to start with? If they did, and it is worn out, and you put on another one, I don't see why it would take any more power than when it was first made. You are only getting it back right again. The question is, are you reducing the hole and pulling the cotton?

Mr. DeBrule: I agree with that gentleman. If the card was right in the beginning and went wrong and you get it back right, let the power go.

Mr. Simmons: Let's go on to the next subject. The third question is still on trumpet holes. "Is there a practical method of plugging trumpet holes and reboring them?"

Mr. DeBrule: If I understand that, it is pouring the trumpet full of something and then boring it out again.

Mr. Simmons: That is what I understand from it.

Mr. DeBrule: I have tried that, and it does not work.

Mr. Simmons: Why doesn't it work? What happens?

Mr. DeBrule: I find if you pour this trumpet full of metal and then rebore it, it is not so long before it is wrong. We take it not so much from the mill's standpoint as from the standpoint of the labor and everything else concerned. You can get a new trumpet for 55 cents, for a Saco-Lowell card. I do not know how long this repaired trumpet would last, but I have to pay my machinist 65 or 75 cents an hour to do that work, and then it is a makeshift job. You can buy a new trumpet just as cheaply.

Mr. Simmons: I imagine the person who asked this question had that in mind.

Mr. Stutts: I think if you do that you would have to do it again in six months. Of course, the cost of a new trumpet is negligible. As to the diameter of the trumpet, we have sometimes taken a screw and driven it through that trumpet and ground it off smooth and then bored the size of hole we wanted. That is, of course, a makeshift job.

Mr. Simmons: Is there another method? We have heard two.

Mr. McNeill: There is another way, Mr. Chairman, and that is to cut out that trumpet entirely and then insert another trumpet on the drawing frame. I have seen that work very satisfactorily.

Yard To Yard Tolerance On Picker Laps

Mr. Simmons: The next part of this question is: "What is your yard-to-yard tolerance on picker laps?" What would you consider a good or a fair yard-to-yard tolerance on your picker laps? How many of you have this device to check picker laps yard by yard? (Three.) What would you consider a fair tolerance, Mr. Stutts?

Mr. Stutts: I could not tell you.

Mr. Simmons: You do not remember?

Mr. Stutts: No.

Frank Lockman: Three-fifths of an ounce is good— $1\frac{1}{2}$ on each side.

Mr. DeBrule: What is that in percentage?

Mr. Lockman: About 1.96 per cent.

Mr. DeBrule: That is about 2 per cent from standard?

Mr. Lockman: That is right.

Mr. Simmons: What do you allow, Mr. DeBrule?

Mr. DeBrule: We allow 2 per cent either way.

Mr. Lockman: That does not mean take the last two or three yards on that lap, either.

Mr. DeBrule: No.

Mr. Lockman: You throw them away. (Laughter.)

Mr. DeBrule: We cut two yards off each lap. Sometimes I try to get the boy who is cutting to take off more than two. When you come down to the end of the can, where the lap is wrinkled, I do not think you would get a fair test on that.

Question: Would laps with twice this tolerance produce yarn with the same relative percentage of deviation?

Mr. Simmons: I am not sure I understand that.

Mr. DeBrule: Mr. Chairman, I don't think you would get any laps like that. I don't think you will get any discussion on that.

Mr. Simmons: You mean you do not have that much?

Mr. DeBrule: Yes, sir.

Mr. Simmons: You say two per cent variation on either side is good. If you get a lap 4 per cent on either side, what would the variation be in the yarn? Would the variation in the yarn be twice as much?

Mr. DeBrule: I don't think you would realize that anywhere through the mill. Maybe you get one lap with that variation, but the next lap would not vary so much.

Mr. Simmons: You think the doublings would take care of that bad lap?

Mr. DeBrule: Yes, sir, I think so.

W. E. Hammond, Supt., Balfour Mills, Balfour, N. C.: I want to ask what is the best method of disposing of the pieces made at the back of the long-draft roving frame.

Mr. Simmons: Some of you fellows who have long-draft frames tell Mr. Hammond the best method of disposing of pieces left in the cans.

Mr. Lockman: That is the sliver in the can on long-draft roving?

Mr. Hammond: Yes. What do you do with that, run it through the drawing or take it further back than that?

Mr. DeBrule: We have long-draft slubbers in our plant altogether. We take one of those cans and put it in each sliver machine. We have a five-control lap machine. We put one with fifteen ends of sliver and run it back.

I should like to hear that discussed.

Mr. Atkins: That is one of the best ways to do it, but if you have already gotten it to the speeder before you discover it what do you do with it?

Mr. DeBrule: Personally, I think I would take it back to the picker.

Mr. McNeill: Mr. Chairman, I know of one mill that has the same weight of sliver throughout. He takes these back and runs them through the drawing—the first and second and finisher drawings.

Mr. Simmons: That is what you are doing, too, Mr.



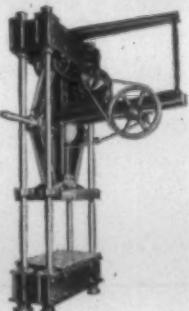
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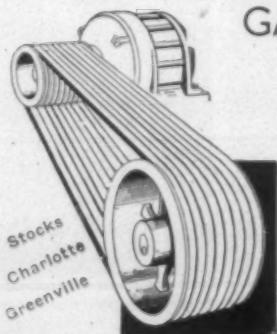
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DeBrule, except you have a lapping machine?

Mr. DeBrule: A lapper, yes, sir.

Mr. Stutts: Mr. DeBrule, do you have the positive knock-off on your drawing?

Mr. DeBrule: Yes. That lap runs out and the can is full. If you want more in the cans you make a larger lap.

Mr. Stutts: We have the positive knock-off on the drawing and find those cans as a rule run just about the same number of yards. We reel only a half of a frame at one time, and most of those cans run out just about together. Consequently, when the superdraft thing is running out it runs out so well that the tender can almost keep those ends up. The very small amount we have left in those cans we just dump and feed it back in the waste hopper.

A Member: It is almost impossible to get the same yardage. We let it run out and turn that can on top of a full can. I like that, because if you have a number of extra cans the fellow on the first shift does not care how it goes for the man on the next shift, but when he has to dump it on top of his own can he takes more care.

Mr. Simmons: We had better move on. The next question is under spinning: "Is there a dressing made to use on long-draft cots or aprons? Describe any kind used and tell the results." How many have long-draft spinning? (Several.) Is that the type that uses the apron?

Mr. Lockman: Yes.

Mr. Simmons: Do you use a dressing?

Mr. Lockman: I have not had any experience with that.

Mr. Simmons: Has anyone? If no one has had any experience with it we will move along. "What is the most practical percentage of humidity to run on long-draft spinning?" We have to have a starting point there. Let me put it another way—do you run more or less humidity in long-draft spinning than you would on conventional-draft spinning?

J. L. Delany, Asst. Supt., Joanna Textile Mills Co., Goldville: I came out of the spinning room this morning. We have long-draft spinning and find ours best between 40 and 45 on 30s warp.

Frank Lockman: My experience is that it takes less humidity in our mill for long-draft than for regular spinning.

Mr. Simmons: What humidity do you run?

Mr. Lockman: I like it anywhere from 40 to 50. Around 45.

Mr. Simmons: That bears out Mr. Delany's experience.

Do you remember what humidity you run, Mr. McNeill?

Mr. McNeill: We run ours around 50.

Mr. Simmons: Somewhere between 40 and 50 per cent; everybody seems to be agreed on that.

Oiling Lifting Rods

The next question is: "Do you oil lifting rods? If so,

how often? What type of oil do you use?"

Frank Lockman: I oil them once a week with pure lard oil.

Mr. Delany: We oil ours about once a week with pure lard oil. I use no other kind of oil on it.

A Member: We oil ours once a week—120 hours. We use lard oil, but the oil people put out a cheaper oil. We use a very light oil now, stainless.

Mr. Simmons: Once a week seems to be the usual system.

Frank Lockman: Are you ever bothered any with rods sticking?

A Member: Oh, yes.

Mr. Lockman: You will not be, with lard oil.

Mr. Simmons: Before we take up the next question, Mr. Morton has something to say to us.

Chairman Morton: As this is the time to elect officers, I want to appoint a nominating committee. We need a chairman for weavers and one for carding and spinning and a general chairman for the State of South Carolina. As chairman of that nominating committee I appoint Mr. Smith Crow, of Drayton Mills, Spartanburg, Mr. T. M. McNeill, of the Monarch Mills, Union, and Mr. Frank D. Lockman, of the Monarch Mills, Lockhart. I ask that these gentlemen get together right away to decide on the nominations.

Mr. Simmons: This next question is one on which we had a lot of discussion two or three years ago. "What are the main causes of kinky filling other than having excessive twist?" This being in the spinning discussion, I imagine that means causes outside the weave room.

Mr. Atkins: We blame it all on the weave room.

John S. Lockman: I think we ought to go to the weave room to find out.

Mr. Simmons: Of course, all you spinners know that loom fixers make most of your kinky filling. What are the causes outside of excessive twist?

Mr. Lockman: I do not see any reason for it except that it does not come off the quill right.

Mr. Simmons: In other words, if you have the right filling it does not get kinky. I do not know what the man who asked this question had in mind. There are a lot of things in the weave room to cause it; we know that.

A Member: Is there anything in the spinning room to cause it to get kinky as it goes on the quill?

A Member: That would be excessive twist. If your staple is harsh you have to put in less twist.

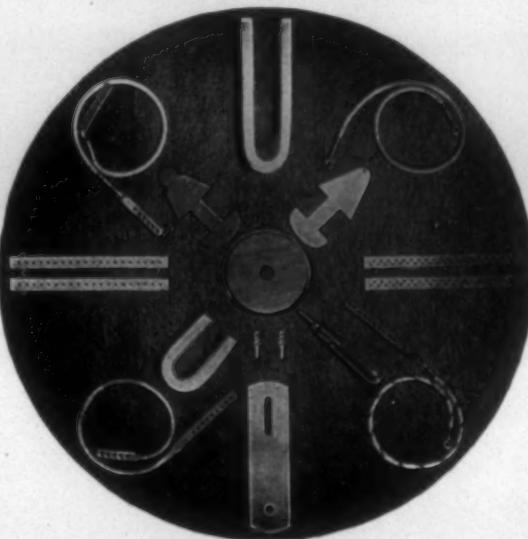
Mr. Simmons: The next question is: "What is the best way to eliminate hard ends in the spinning department?" What do you say? To eliminate the card room? (Laughter.)

John S. Lockman: I think where you have ends down and put them back the doubling is what causes it.

Mr. Simmons: What can be done in the spinning room to avoid hard ends?

Mr. Lockman: The only thing I know is, if you make

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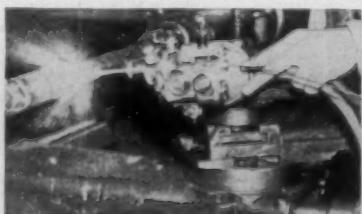
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grooves in your cot, take it off. If you have a groove in your roller it will make more hard ends. It makes it very expensive for the spinning room.

Mr. Simmons: Yes. The piecing in the card room started it, didn't it? I am inclined to think most of the hard ends have to be avoided further back than the spinning room.

While we are waiting for the nominating committee to come in, let's talk about some of the ways to eliminate hard ends in the card room. What do you do? Do your second hands try to watch your frame tenders and coach them and teach them, or do you just accept so many hard ends as a necessary evil and let them go?

John S. Lockman: There is so much work on the overseers in this day and time that they hardly have time to teach the people anything.

Chairman Morton: I should like to ask a question in connection with long-draft spinning, and I am not asking because I know the answer but because I want somebody to tell me. In running the long-draft spinning with the apron the traverse motion on the spinning frame, in going back and forwards, will make a groove in the roller after so long a time. It will also make a groove in the apron. Does that groove in the apron affect your work the same as if the roller were grooved? I am speaking of the carrier apron that carries the roving through the rolls. If there is a groove worn out in the apron, will that cause bad work or uneven work? I should like to know if it will do that, if some of you have had that experience.

John S. Lockman: Mr. Chairman, if you have run roving long enough to press down your roller and your apron you have practically the same thing as if you had a new roller and a new apron, because it all goes together. So long as you do not extend your traverse so it goes out of those places I do not see why you would not make just as good roving as if you put on a new roller and a new apron.

Mr. DeBrule: Of course, I am in defense of the carder on this proposition. Where you have a roller and an apron going together, say the apron is twice as long, why would it not be that you change the roller twice and change the apron once?

Mr. Delaney: Isn't there a certain amount of cushion effect underneath the roller? You put a cushion on the top roller and cover it with skin. That cushion wears down quite frequently.

Mr. Morton: I merely asked the question; I am not putting up an argument either way. At different mills I have been they have had these aprons grooved out in running single heavy roving on long draft. Some would say that we ought to replace all these aprons, and some would say we should not. I merely asked the question for my own benefit.

John S. Lockman: Mr. Chairman, you will find that one of those aprons will not groove anything like as quickly as the front roll does, because the front roll makes a lot more revolutions than the apron does. In fact, I think the apron should be changed when it is worn down.

Mr. Delaney: Why shouldn't it be changed in proportion to the roller? It is longer than the roll. Maybe you would change the roller five times and the apron once.

Chairman Morton: That is generally the rule. You

are going to change your front rolls very often. It would be very expensive to change those aprons every time you had the rollers buffed or anything done to them.

Mr. Delaney: The expense of that apron, though, is very small in proportion to the quality of the work you put in the weave room. It would be expensive from a quality standpoint.

Chairman Morton: The question I ask is, does it harm your work enough to change them? I am asking for information.

Mr. Delaney: I don't know.

John S. Lockman: Whenever that cotton leaves the apron roller it is coming back practically to its same size before it hits the front roller. There is nothing to break it down back on that apron. You get your results on your front roller.

Chairman Morton: Gentlemen, the Nominating Committee has come in, and at this time we will hear its report. Mr. Crow?

Smith Crow, Gen. Supt., Drayton Mills, Spartanburg: Mr. Chairman, your committee wishes to recommend Mr. Wallace Splawn, of Pelzer, S. C., as general chairman; Mr. G. P. DeBrule, of Springs Cotton Mills, Chester, as chairman on carding and spinning; and Mr. F. D. Lockman, Jr., of the Monarch Mills, Lockhart, as chairman on weaving.

Chairman: What is your pleasure, gentlemen? Do I hear a motion?

Motion offered to accept the report; seconded; carried.

Mr. Simmons: Mr. Morton asked me to lead the discussion on carding and spinning, since Mr. Splawn is not here. We have now finished that, so I turn the meeting back to Mr. Morton, the general chairman.

Mr. D.: Mr. Chairman, I wonder if you know why Mr. Splawn is not here this morning?

Chairman Morton: No, sir.

Mr. D.: Mr. Splawn called me last night and said that, although he would be in Spartanburg today, he could not be at the meeting. His mother is in a hospital here, seriously ill. He has lost a lot of time and sleep to be with her. She has had a number of blood transfusions. I do not know whether he has donated any blood or not.

Mr. Crow: He was going to, yesterday.

Mr. D.: That is why he is not here; he just did not feel like coming out.

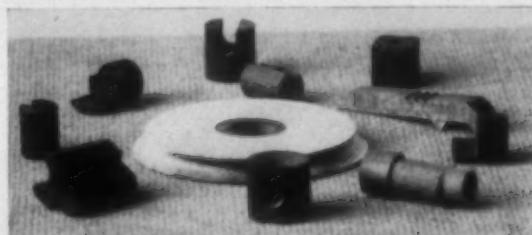
Chairman: I am very sorry to hear that. We all know Mr. Splawn and are very fond of him.

At this time I ask Mr. Burgess to come forward and lead the discussion on weaving. Mr. Burgess moved away and resigned, but I never accepted his resignation.

May I at this time thank you all for coming to the meetings and also express my appreciation for the honor you bestowed upon me last year in electing me chairman. I have been a very poor officer, but I told you that I would be, when you elected me, so you should not be disappointed.

All right, Mr. Burgess; go right ahead.

(To Be Continued)



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Visiting the Mills

Intimate Glimpses of Activities in Southern Textile Plants and the Men Who Own and Operate Them.

By Mrs. Ethel Thomas Dabbs (Aunt Becky)

HENDERSON, N. C.

Henderson and Harriett Cotton Mills

The cotton mills at Henderson, N. C., have been so thoroughly renovated that to one who has not watched the various improvements as they were made, the wonderful difference is amazing.

Machinery that isn't new has been overhauled and put



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Back Row—W. E. Simpson, Head Card Grinder; Robt. N. Gupton, Overseer Spinning and Winding No. 1; E. G. Allen, Overseer Winding Nos. 2 and 3; H. A. Jordan, Yard Overseer; D. S. Forsythe, Machinist; M. L. Edwards, Master Mechanic; J. N. Proctor, Superintendent Nos. 1, 2 and 3.

into first-class condition. Wages are good, the people are happy and prosperous, and to visit these mills was indeed a pleasure.

Every Key Man Takes Textile Bulletin

One of our very finest lists of subscribers is at Henderson, where "Aunt Becky" had the delightful pleasure of securing every key man in all four mills on all three shifts—a grand total of 118, and as fine a group as can be found.

Never in any place have we had finer co-operation than was extended by Superintendent J. C. Farmer and overseers at the Henderson Mill, and J. M. Proctor, superintendent of the three Harriett Mills. Mr. Proctor was formerly with Mooresville Cotton Mills, Mooresville, N. C.

These are the Cooper Mills, with S. P. Cooper, president, J. A. Cooper, secretary, and John D. Cooper, Jr., general superintendent. Operatives here very emphatically declare that there is not a better company to work for.

People Wish To Buy Homes

There has been some talk of selling the village homes, and it is estimated that the majority of the operatives wishes to buy. The homes are being put into good repair, reroofed where needed and painted.

The satisfaction of owning a home is made easy for mill people, when they can buy for a reasonable sum, and pay a small amount each payday. Home ownership develops civic pride, too, and much more attention is paid to the yard and garden. Planting trees and flowers on one's own premises, watching them grow and bloom, brings joy to the hearts of those in the home and makes the old home town dearer.

Community Center and Canteen

These mills have a Community Center and a nice canteen for North Henderson (Henderson Cotton Mills) and for South Henderson (Harriett Mills). The canteen is operated by Mrs. Chavasse, with Mrs. E. T. Austin superintending. Refreshments are delivered through the mills on trucks operated by nine boys—four in North Henderson and five in South Henderson. All profits above operating expenses are for community benefit.

Henderson Cotton Mill

J. C. Farmer, superintendent, has built a nice home. S. H. Caldwell, night superintendent; E. E. Huffman,



HENDERSON COTTON MILL

Front Row—J. W. Brown, Overseer Spinning; D. H. McIntyre, Shipping; W. F. Edwards, Electrician; A. L. Cranford, Overseer Weaving; Geo. A. Lowery, Master Mechanic.

Back Row—J. C. Farmer, Superintendent; J. K. Nowell, Overseer Winding; L. R. Williams, Carpenter; Geo. R. Parrish, Machinist; E. E. Huffman, Overseer Carding.

carder; J. W. Brown, spinner; J. K. Nowell, winder; A. L. Cranford, weaver; Geo. A. Lowery, master mechanic; has been here 45 years and is the proud possessor of a

handsome gold watch appropriately engraved, and given him by the mill company in appreciation for his long and loyal service; and he is still going strong.

Geo. R. Parrish, machinist, has 27 years to his credit and hopes some day to win a timepiece like the one owned by Mr. Lowery.

John A. Huffman, assistant overseer carding; Charles P. Lowery, Thornton Nicholson and J. G. Simpson, second hands; B. F. Crocker, Norman Pearce, Heber Lewis, Melvin R. Perry, Melvin Ross, card grinders; A. L. Hogan, master card grinder; Sam E. Turner and Ollie Jackson, section men.

W. H. Clopton, shift foreman in spinning; W. A. Edge, E. F. Brummitt and James L. Denton, second hands; G. H. Carter, J. C. Smith, Walter L. Hayes, Raymond Adams, Geo. H. Anderson and Jesse M. Hale, section men; Geo. H. Boone, overhauler.

Jesse H. Hayes, Jimmie Vaughn, V. V. Brinkley and Clyde Crabtree, section men in winding.

LeRoy Putman, second hand in weaving, second shift; H. S. Wilkerson, W. M. Putman and Roy L. Moore, loom fixers; W. T. Adams, drawing-in.

W. F. Edwards, electrician; C. C. Gupton (bachelor), supply man; R. L. Williams, village carpenter.

Harriett Mills Nos. 1, 2 and 3

These mills are going nicely, full time, and operatives are happier than we have ever seen them. Guess one reason is, better wages plus good, efficient and understanding leadership.

J. D. Proctor is superintendent; L. M. Howland, assistant superintendent; R. D. Redding, night superintendent.

No. 1 Carding: W. R. Perry, overseer, has a service record of 42 years; this card room is on the ground floor, rests on the ground and does not touch the walls. Consequently, there is no vibration; Joe L. Harris and Willie B. Gibson are section men, with John T. Long and Clifton Collins, card grinders, first shift.

Harry W. Catlett is second hand; Hugh Williams, oiler, second shift; Lee W. Harris and Vollie B. Manning, section men on third shift carding.

Spinning No. 1: Robt. N. Gupton, overseer spinning, winding and packing, has been with the Cooper organization 41 years. Billy M. House, Herbert A. Boone, Archie A. Ayscue and Charlie N. Raines are second hands; John L. Lamb, Tom Duke and Louis Vick, section men; Willie E. Hamlin, oiler.

Other live wires at No. 1 are: Edward V. Grammar, Raymond O. Thomas, Jesse J. Lassiter, Louis R. Harris, W. R. Inscue, William A. Bartholomew, Lee R. Williams, Charlie M. Roberson, Geo. B. Treece, Wm. T. Fuller, Sidney O. Rose, Robt. S. Montgomery, Sidney T. Allen, James R. Johnson, Elliott G. Duke, Randolph Smith, Geo. L. Hedgepath, Norman Duke, Lonnie W. Pruitt, Wm. B. Harris and Lawrence A. Clark.

Everyone of these take the Textile Bulletin.

Mills Nos. 2 and 3

M. C. Mills, overseer carding: Raymond W. Delridge, R. L. Robards and Lacy McDade, second hands; James M. Wheeler, Thomas Justice and Willie M. Seamster, section men; O. J. Blue, W. L. McLean, Reuben Taut and Woodrow H. Johnson, card grinders; W. E. Simpson is head grinder for all three Harriett mills.

R. H. Higgins, overseer spinning, twisting and spooling; Macon Treece, Paul Hensley and Junie W. Thomas, second hands in spinning; Ollie Harris, John W. Thomas and Clem Bunn, second hands twisting and spooling; Howard Thomas, O. Lockman, S. E. Singletary and James Pulley, section men.

E. G. Allen, overseer winding; L. H. Stells, Woodrow W. Kelly and Lloyd L. Ramsey, second hands in winding; L. D. Abbott, second hand in packing.

Herman Rains, supplies; H. A. Jordan, yard overseer; M. F. Edwards, master mechanic; D. S. Forsythe, machinist; J. N. (Dad) Coghill, sanitation.

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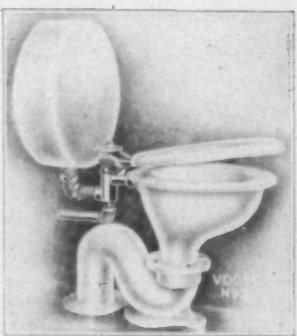
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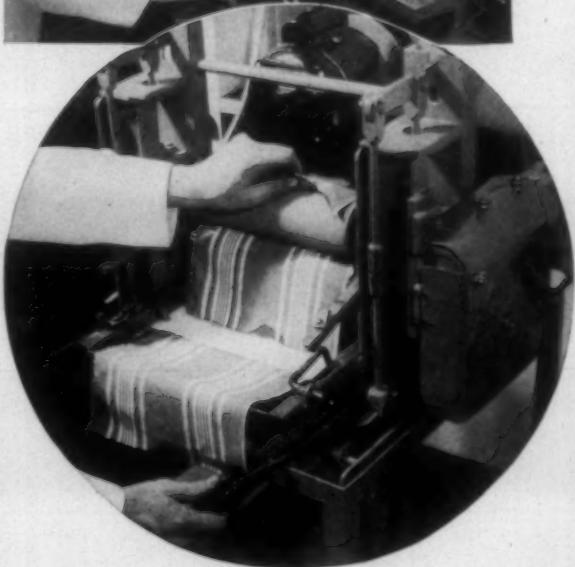
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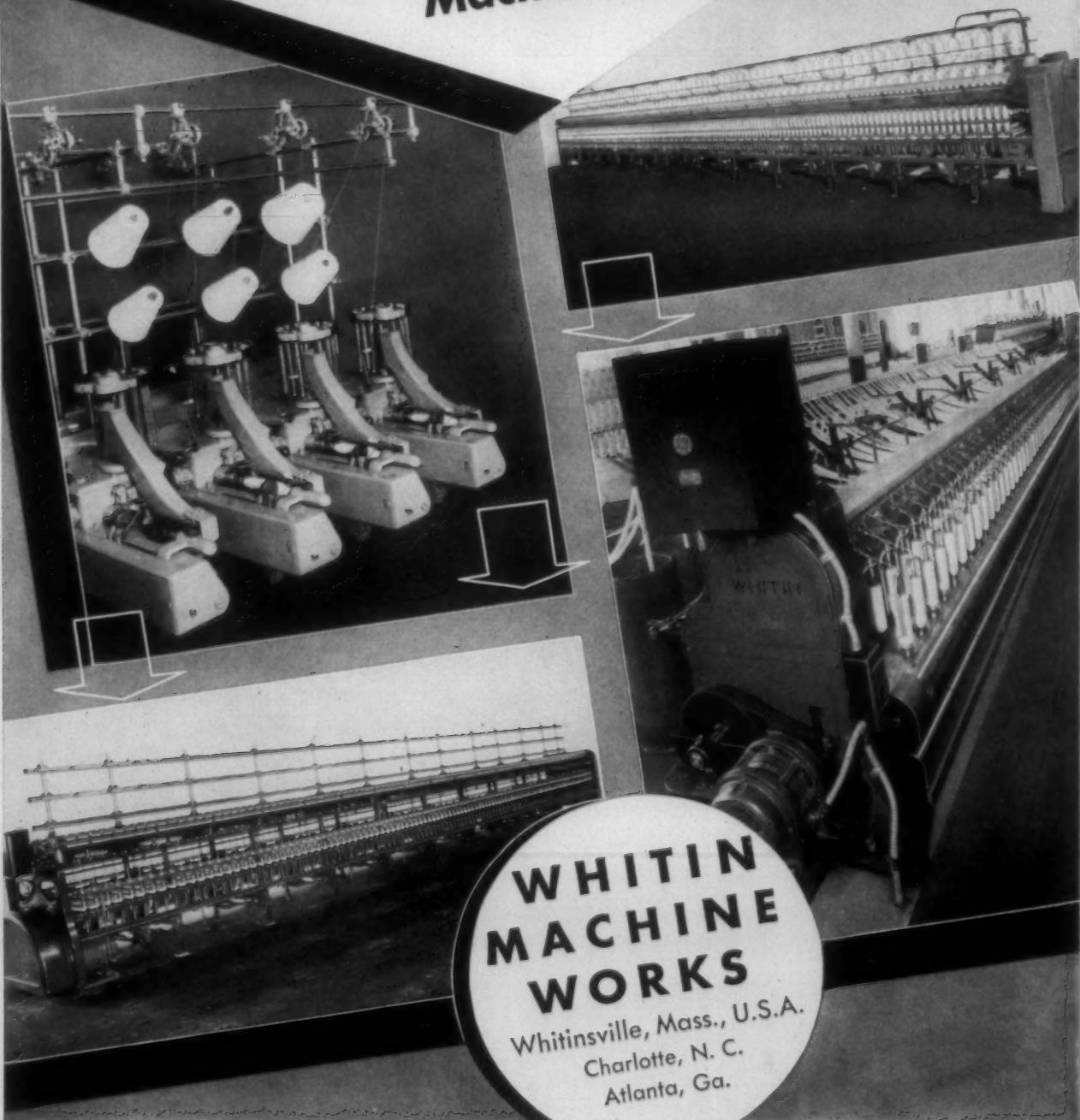


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